

THE MICHIGAN FARMER,

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Relating to the Farm, the Garden, and the Household.

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The Farm.

The State Agricultural College.

THE FARM BUILDINGS—No. 6.

In the last number which treated of the
subject of farm buildings, it was shown with as
much precision as possible, what would be the
amount of stock that could be kept, over and
above that which is now upon the estate, with
the amount of food and forage it is now most
probable may be harvested. Since we then
wrote, the rains and warm weather have pushed
forward vegetation, and all the root crops
are growing most luxuriantly, whilst the corn
is at least equal to any that can be found in
the State, on the new, timbered lands of the
northern counties. It is not improbable that
our estimates of surplus stock that may be
kept on this place may be considerably ex-
ceeded. It is therefore of importance that
whatever buildings or protection may be re-
quired for the accommodation of stock, it
should be decided before the winter season
approaches, what will be both most suitable
for temporary erections, and most economi-
cal to erect.

In the rear of the brick barn which has
been heretofore mentioned, there is a lane
leading down to the Cedar river, to a bridge
that connects the farm that lies on the south
side with that on which the buildings are lo-
cated. This lane is surveyed out so as to run
north and south, or at least nearly so, when
it is permanently fenced, and not lined on
either side with the crooked worm fence of
the early settler. It is planned to run in a
direct line, taking the south east corner of the
brick barn as the base, and one rod on the
west side of the present bridge as its termi-
nus. This lane or road is laid out to be sixty
feet in width. On its west side is located the
pig pen and yard, and on this side it is also in-
tended to locate a small slaughter-house for
the convenience of the College. On the east
side of the lane, on the crown of the hill near
the northwest corner of lot nine, where Aus-
tralian wheat grew, a cattle and barn yard has
been planned, on the cheapest possible plan,

for this year. The west side of this yard is
located so as to be twenty feet inside of the
east line of the lane.

When it was first proposed to build a per-
manent barn, there were authorized to be
erected several barrack stacks with sliding
roofs, for the accommodation of the grain
crops, there not being any protection or cov-
ering on the farm for fodder crops of any
kind, and it was determined at first to locate
them in connection with the site chosen for
the large stock barn itself. The erection of
any barn being given up for the present year,
of course it became necessary to change all
the plans heretofore devised, and to adopt
designs that would be of the greatest use for
a single season, with the smallest outlay.—
Hence it was originally designed to have the
barrack stacks permanently located and the
main posts sunk in the ground. The change
of plan, however, made us devise a plan by
which the stacks, of which there are six, should
each form a portion of the cattle yard. By
this plan six of these stacks were placed so
that three should be on the northern side of
the yard, and three on the southern side, and
form two hollow squares, thus:



The two stacks located on the west side of
the yard are situate twenty feet from the line
of the lane, and thus permit a shed to be put
up outside of them which will shelter the
wagons and sleighs, and other implements
which now have to remain out of doors ex-
posed. Each of the stacks on the north and
south sides are designed to stand forty feet
from each other, and the north and south lines
are to be eighty feet, so that yard a. will be,
when complete, 68 feet east and west by 80
feet north and south, and yard b. will be 50
feet one way by 80 feet the other. On three
of the sides of the yard a. it is designed to
put up plain board sheds, made of such stuff
as can be used for the roof boards of a more
permanent barn at any time during the next
two years. Each of these sheds will be forty
feet long, and the one on the north side is in-
tended for the milk cattle; the one on the
east side for the working oxen and such beef
cattle as may need the room, and the shed on
the south side is for such young feeding stock
as it may be found necessary to keep to con-
sume the crops, and thus to make beef, ma-
nure and money returns for them.

On the north side of yard b. will also be a
shed forty feet long, intended for sheep. This
yard will have an opening into the wheat
stubble lot in which is located the yard, be-
cause sheep never do well when confined. It
is calculated that from 100 to 150 sheep can
be pretty comfortably accommodated and fed
here with the greatest regularity.

The cost of this yard and all connected
with its completion, may be estimated pretty
much as follows:

1st. There are the six barrack stacks which
form the corners of the yards, and which af-
ford the protection to the crops. These were
originally intended to be put on posts sunk in
the ground, but have been put on swamp oak
sills. They are thus made because they can
be moved at any time without danger, and put
in a more permanent position when needed.
All of these barrack stacks are 14 feet
square, and are 18 feet high to peak of roof.
Two of them very nearly held the crop of
oats taken from thirty-four acres of land, so
that they have a good capacity. It must be
noted, however, that the oats were not a heavy
growth of straw. They are made with a slid-
ing roof, that can be raised or lowered by
means of pulleys sunk into the main or gal-
lows frame that is the chief support. The
bill of timber required for one of these struc-
tures on sills, is as follows:

2 sills 16 feet long, 8 inches by 8 inches, to stand posts on.	
3 posts 18 feet long, 6 inches by 6 inches, to form support for roof.	
1 plate for top of posts, 18 feet 6 inches by 6 inches, from which roof hangs.	
2 sills, each six inches through, hewed on one side, and 14 feet in length.	
4 posts 8 feet long, hewed on two sides, to form corners of sides, 6 inches.	
2 girts, each 14 feet in length, hewed on two sides, six inches.	
4 plates 14 feet long, 2x4 inches, containing.....	87 feet.
6 girts, 14 feet long, 2x4 inches.....	85 "
4 hip rafters, 11 feet long, 2x4.....	99 "
6 common or main rafters, 8 feet, 2x4.....	81 "
8 jack rafters, 4 feet long, 2x4 inches.....	81 "
6 braces, 4 1/2 feet long, 2x4.....	18 "
8 siding, 14 feet, 8 feet high on four sides.....	448 "
Roof boards.....	340 "

839 feet.

The roof is a hip roof with a quarter
pitch, and has a surface of 240 feet, requiring
2,550 shingles to cover it.

The nails required are 12 lbs. of shingle
nails and 10 lbs. of eight-penny nails. Two
cast-iron sheave pulleys with wrought iron
bolts, and thirty feet of inch and a quarter
rope, are required to hoist the roof; and one
windlass answers for the whole six stacks, as
the roof only requires to be raised or lowered
at long intervals.

The time occupied in the erection of three
of these structures, so far, has been twelve
days of a master carpenter and 216 hours of
students' labor. To this, however, has to be
added the time occupied in the selection of
timber and getting it out of the woods.

For the purpose of making the roof as
light as possible, the rafters were made of
basswood, and whitewood shingles are used
for roofing.

A Supply of Air for the Roots of Plants.

The main object of the practical farmer is
to raise from the dead earth the living plant;
and in order to do this, it has been found
necessary in all countries, and in all ages of
the art, to break up, and more or less to pul-
verize the surface soil. As this is the natu-
ral station for all our cultivated crops, and
where they obtain a large portion of the nec-
essary elemental food requisite for their de-
velopment and maturation, certain conditions
of the said surface become absolutely neces-
sary. Moisture, warmth and air, in due pro-
portions, are indispensable both to the roots
which are extended through the soil in search
of mineral food, and to the stem and leaves
which appear above the surface, one of whose
chief functions being the absorption of gase-
ous matter from the surrounding atmos-
phere. An excess of moisture is commonly
more injurious to plants, than the extremes of
heat and air; for when a soil becomes satura-
ted with water for any considerable time, air
is in a great measure excluded from its pores,
and the slow and constant evaporation which
is going on at the surface, keeps down the
temperature to a degree inimical to the
healthy progress of vegetation. For a soil
therefore, to be made porous so as to freely
admit air, warmth and moisture, with the ca-
pability of any superfluous amount of the
latter freely percolating away, constitutes an
anxious on which all our operations of plough-
ing, trenching, digging, draining, &c., are
founded.

Soils, it is well known, vary much in their
chemical composition and mechanical texture.
The success of many crops depends as much
upon the latter as upon the former; and in no
case can the natural or artificial consistency
of the soil be safely disregarded. Most of
the winter wheat in Canada is raised on sum-
mer fallows; but the operation of fallowing
is often so imperfectly done that a dimin-
ished crop of inferior quality is the inevitable
result. Wheat, it is true, naturally covets a
close soil; yet the deeper and more thorough-
ly it is pulverized, so as to allow air, warmth
and moisture freely to come in contact with
the roots of the young plant, the more free-
ly will it grow, and the more abundant will be
the produce. If, however, water should in
any considerable quantity stagnate, so as par-
tially to exclude the air, and by surface evap-
oration produce cold, underground draining
is essential to the procuring of a profitable
crop.

That the contact of air to the roots of plants
was always considered necessary, is evident
from the oldest agricultural writers; but the
principle was never so fully understood and
acted upon, as it has been of late years. The
first and most striking instance confirmatory
of the opinion was the fact of large, full-
grown, ornamental forest trees having been
killed by their roots being too deeply covered
up with earth when leveling lawns; and plant-
ers and gardeners have long been aware of
the injurious effects of planting as well as
sowing too deep. Formerly it was thought
that the earthly materials in which valuable
exotic plants were to be placed could not be
too finely sifted and mixed; whereas experi-
ence at length showed that the small particles
of such soils soon run together and become
a compact mass after heavy rains, thus oper-
ating against the extension of the young

roots, and in great measure excluding the ex-
ternal air and moisture. Among coarser and
looser materials, however, a considerable
body of air was found to repose, and the more
active fibres to extend much more luxuriantly
than in closer and denser soils.

The gardener's improved practice is only
another proof how much a porous soil and
presence of air are necessary to the roots of
plants; and yet we often see the most luxuri-
ant vegetation produced by soils which are ap-
parently very close in texture; such as allu-
vial soils and fertile clays. Both these de-
scriptions of soils being composed of the finest
atoms, become exceedingly close and com-
pact if undisturbed; but when plowed or
otherwise periodically moved, the surface
portion attracts as much of the qualities of
the air as suffices for the following crop. It
is rather remarkable that while oak thrives
best on clayey subsoil, it does not seem to af-
fect rich alluvial land, owing probably to its
closeness of texture preventing all access of
air to the place of the roots.

Aquatic plants, which live entirely sub-
merged, although defended from external air,
receive as much as they need from the sur-
rounding water, which always contains a no-
table measure, besides nutritive bodies in so-
lution, which form the pabulum of plants,
whether aquatic or terrestrial.

Another tribe of plants are attached to the
earth so slightly that their system of roots is
nothing compared with the bulky heads sus-
tained; and as these plants are mostly found
on rocks, or on the driest tracts of country, it
is evident that the greatest portion of their
nutriment is drawn from the atmosphere.—
Another tribe of curious and beautiful flow-
ering plants is called Epiphytes; because
they attach themselves to the stems and
branches of trees, not to sustain themselves
by extracting their juices, but to be supported
in the deep shade and moist air of thick tropi-
cal woods. Some of these are called air
plants, and grow as well in a basket without
earth, suspended in a warm, damp, shady
place, as if they were in their native habitat.

Thus it is apparent that atmospheric air is
essentially necessary to plants, and as much
to the roots, as to the stem and foliage; and
it is this fact, as already observed, that jus-
tifies all the means of cultivation which the
farmer and gardener have recourse to with a
view of rendering the staple of the soil more
loose and consequently more permeable to all
atmospheric influences.

There is one circumstance, however, which
deserves to be noticed along with these gen-
eral remarks; it is this, that all seeds require
to be closely embedded in the soil, that is,
they should be in close contact with the
mould on all sides; and, that this should be
completely secured, some seeds in particular
require a mechanical pressure of the
earth upon them, as wheat, for instance.—
Now, we have only to consider that as the
soil has been previously prepared, and more
or less reduced to the finest practicable state,
a considerable volume of air is incorporated
therewith, and that this air, according to its
temperature and the moisture of the soil, fa-
cilitates the germination of the seed, and con-
tinues to assist the development of the plant.
To obtain this close embedding of the seed
on light, porous soils, it is the practice to
press it in, a practice which is found of ser-
vice to wheat, peas, beans, and almost all
small seeds; but which would be of no avail
without the previous disruption and aeration
of the soil.

All these matters premised, it only remains
to conclude with a general declaration that, in
all practices and means employed for the
amelioration of the land, everything that can
be added or taken away, every operation per-
formed, and every implement used in the cul-
ture, should all have for their ultimate object
either directly or indirectly, the breaking up
of the compact and impervious surface, so
that copious and constant supplies of air may
be freely admitted at the roots of plants.—
—Canadian Agriculturist.

To be at the State Fair.

Last week we had the pleasure of exam-
ining a most beautiful filly belonging to F.
E. Eldred, Esq., by Buford, the fine thor-
oughbred stallion owned by the late H. R. An-

draws, Esq., from his thoroughbred mare
Lady Jane. Buford is a son of Glencoe, and
the dam is from a thoroughbred imported, and
a granddaughter of Eclipse. The filly is
a beautiful creature, and a most thrifty grow-
er, showing great action and good size for its
age, as well as a fine proportion. We have
no doubt that the class shown at the State
Fair this year will be superior in many re-
spects to any that has yet been seen. Bet-
ter and more correct notions relative to breed-
ing horses are gaining ground, from year to
year, and as the result, the quality of the
colts will be improved.

Breaking Colts.

A writer in the *Country Gentleman* says:
"As some of your subscribers are troubled
with their horses hugging the reins, I will
give you my method of breaking colts. First
I put on a high part mouth bit, to learn the
colt to keep his tongue below the bit—(bridle
with no blinds); put on the harness one
hour in the forenoon, and one in the after-
noon, with the breechen straps hanging
about the legs—crupper-pad six inches round.
Do this for one week, tying him on both sides
of the stall, reined moderately. Then change
the bit to a chain-bit, placing him between
the poles of a double-wagon, between two
steady farm horses, and have him so regulated
by the reins that he can neither pull too much
nor fall back—the old horses having control
over him by the breechen and reins. Keep
him in daily, till he learns all that is necessary
when he is spoken to, seldom driving off of
a walk. Never hitch a young horse to a
harrow, plow, or cultivator, till he is thor-
oughly at command in the wagon—which will
take often six months. Drive with blinds if
the colt is timid or lazy.

If disposed to kick in handling, tie up his
head as high as possible alongside of the
barn, and then give him a white birch bush
till he can be handled quietly. One good
dressing will do the business. Biting a colt
as some do, and allowing him to walk about
the yard, I have found to spoil him. Stand-
ing quietly afterwards, when my colts are
broken they need no hitching, however wild
when taken in hand, but are trusty in all re-
spects. Never give a colt in the hands of a
brute of a man to break, if you ever expect
him to be docile, for like gets like—a mulish
man turns out a mulish horse.

If you wish a serviceable horse, four years
is as young as he should be deemed a horse;
he can be well broken before that by my
method, with little hindrance about a farm,
and is worth three horses that are put to draft
at two past.

P. S.—You will perceive the pad of the
crupper being made large, not only breaks the
colt of that hugging practice in putting on
the crupper, but he carries a better tail, and has
never the power to hug the reins, and if dis-
posed to bolt, a few rods with the reins with
a chain bit, will quiet him for that. Never
check a young horse too much when walking
in harness, for it is apt to spoil his reach, and
give him a hitching gait."

Amber Wheat.

We have received a specimen of this excel-
lent variety of wheat from Hon. W. V. Mor-
rison, which was grown upon his farm near
this village. This is the first season this kind
of wheat has been raised in this region, and
the satisfaction its appearance and yield have
given, to the parties introducing it, induces
us to call the attention of our farmers to its
more general cultivation. This variety of
wheat has been successfully cultivated in Ala-
bama, from which State it was introduced
into the State of Illinois some two years
since, and from the latter State, one year
ago, it was brought to Michigan. The par-
cel before us is a splendid sample, and, in
point of quality, it equals any variety of
wheat we ever saw before. Mr. M. informs
us that he commenced cutting his wheat on
the 4th day of July, which is earlier than us-
ual for harvesting most other kinds of wheat.
Its weight, 63 1/2 pounds to the measured
bushel, and its early maturing for harvesting,
are destined, without doubt, to make it a gen-
eral favorite among wheat growers. We
hope our farmers generally will give it a fair
trial.—*Albion Mirror*.

Box-Feeding Cattle or Housing Without Tying.

The method of box-feeding as a modification of ordinary stall-feeding, fastening with stanchions and otherwise, originated, it seems, with John Harver, an enterprising practical farmer of Norfolk, England. Very little has yet appeared on the subject, in the general agricultural press, though some account of it may have been heretofore given in your pages, before the *Stock Journal* came under my notice.

The method of box-feeding having several bearings of decided economical importance, may be described thus: Instead of being tied up, the animal is allowed a box or inclosure, in which it can turn round when it chooses; the boxes, as I understand it, being of any width from three to six feet, by about eight or nine feet in length, with feeding-rack and manger somewhat modified from the usual form. As there appears to be several modifications of this plan, I may here offer a few suggestions of my own.

One of the objects of the plan is to save labor.

It has promoted that object in England as is alleged, and this saving of labor is even more important with us. By allowing the droppings to be deposited in all parts of the box in succession, as will naturally result from allowing the beast to select a fresh position to avoid moist dung each time it lies down, the labor of cleaning the stall daily is saved. This object of distributing the droppings all over the bottom or ground of the pen, is accomplished by the animal, and muck, mold, litter and sawdust can be put down in a thin layer at a time, so as to save all the liquid excretions, and make an excellent compost. The boxes are made deep enough vertically to admit of an accumulation of several feet in thickness, as it is found to keep dry enough in consequence of absorbents like muck, sawdust, chaff, &c., being put under and among it in such quantity as may be requisite for that purpose, and thus they need cleaning out only once in the winter, or, if made specially deep, not till spring. It is said the treading the manure bed constantly receives, prevents fermentation, and thus prevents the animal's health being injured by foul gases, as also the waste of ammonia, and thus is saved a great amount of labor, that with tying in stalls is indispensable in working over the manure and keeping the animals cleanly. Cleaning them often is necessary, but very difficult, tedious and unpleasant operation. When box-fed they keep clean as a matter of choice when allowed room enough, because they instinctively avoid moist dirt or droppings, if permitted the alternative of selecting a position for rest. Where stalls are fitted up with stanchions and floors, these are only removed and the earth dug out deep enough to admit of two to four feet manure accumulating, and so converting stalls into boxes. Some good farmers in Canada adopt this plan, with a vertical rack from the bottom of which the hay drops into a manger. One of the best most successful horse managers I ever saw, adopted it twenty years ago. He was called idle and slovenly because he did not follow the beaten track, but always having good healthy horses, and getting a good price for them.

By some it may be thought that feed will be sometimes spoiled by droppings in the manger. If the boxes are lighted in front of the animal where he eats, and close at the opposite or entrance end, such occurrences will scarcely ever take place, for the animal seeks light with its eye as instinctively and naturally as it seeks food when hungry. Light is as much a natural and necessary condition of sound health, as either rest or exercise, and we may rely upon it, that when the order of nature is perverted, and the natural functions suspended, and the organs weakened and partially destroyed by keeping animals in total darkness, we not only inflict great suffering, but practice very bad economy, particularly with store animals, by permanently injuring their breeding functions and constitutional vigor, for we cannot pervert the order of nature without nullifying the condition of health in an equal degree. Another arrangement might be made beside darkening the back and lighting the front of the box or pen, thus: Put a pole across at such a distance from the manger that the cow or ox must step over it to get at the feed box, and stand with its fore-legs between the pole and the manger when eating; which cross pole should be ten to fifteen inches high according to size of animal, &c. Standing between this pole and the feed box, would do no harm, nor would the pole be any serious inconvenience in any respect, because it would be readily removable and need only be had recourse to with particular animals that required it, in the event of their backing toward the manger when turned with their heads from

the rack. Not one animal in a thousand would ever back over a pole so placed, but all would step over it to feed without dalliance.

The manger or feeding-box would be, I think, better if independent, and detached, so that the compost bed might extend under it to the same uniform depth in all parts of the bed, two upright studs keeping it in its right position.

A few of the advantages of feeding loose in pens or boxes, as distinguished from stall-feeding and tying in any way, may be noticed:

It saves much labor and its necessary time of application, costs, &c.;

It secures a much larger bulk of very valuable composted manure;

It promotes greater cleanliness and a much better appearance of animals so managed or boxed, (as Blood Horses are housed in this way for the sake of muscular health);

It prevents disease by admitting of the antidote of some degree of natural exercise when the instinct dictates its necessity, and therefore must be most beneficial;

It promotes better general health by its greater cleanliness from voluntary choice, greater comfort by admitting of voluntary and necessary choice of position at all times, according to the instinctive dictates of animal feeling; and greater thrift as a natural consequence of more comfort alike in motion, and at rest. On the contrary, a system of compulsory restraint, so far from promoting thrift and health, induces restlessness. For which reasons, among others, I conclude that feeding in loose boxes is more natural, more agreeable, and more economical, particularly as applicable to store stock, than the restraining discomforting and necessary-locomotion-obstructing system of stanchion and stall. Compulsory restraint induces debility, distress and disease, but the voluntary motion promotes cleanliness, exercise, and its resulting energy does not obstruct the exercise of natural functions to a healthful extent, but secures that degree of vigor and thrift which can only come from at least a limited degree of voluntary action of the natural functions.—*Cor. Stock Journal.*

A. Keene Richards and his Imported Stock.

The Cincinnati *Gazette* contains the following description of Mr. Richards' stock, which is of much interest. Mr. Richards resides at Georgetown, Ky:

"The hill upon which stands the mansion house of A. Keene Richards, Esq., rises abruptly on one side from the channel of Big Spring and slopes away on the other to the Lexington Turnpike, and the pastures where feed the rare stock which he has imported at such cost and pains from Europe and Asia. His stud of horses numbers at present 75 head, more than half as many as that of the late Marquis of Waterford, but of far greater value. Among the blooded horses are two splendid Arabian stallions, brought directly from the desert, one a rich chestnut, whose slender but muscular limbs, graceful action, lithe body and flashing but gentle eyes, attest the nobility of his descent. A more detailed account is hardly needed, as "Pasha" is well known to all admirers of his kind. The other, a much older but still spirited animal, is of a snowy white, and is hardly inferior to Pasha in agility, docility and strength. To reproduce even the meagre genealogies of the blooded racers, brood-mares, fillies and colts which make up Mr. Richards' stock of horses would occupy a space which is not at my disposal, and I must close this description with a few words concerning his last and choicest importation, the Knight of St. George, the winner of the St. Leger in 1854. I had thought the Pasha a perfect model of a horse, and others which I was shown seemed to combine every attribute of beauty and strength, but their points appeared insignificant by the side of this magnificent stallion, who is thus described in the English Sporting Magazine: "A beautiful blood bay with a small star in his forehead; he has a very neat thoroughbred head, as well as neck, which he bows or arches when walking; he has a clean light shoulder well thrown back; fair ribs, good back and quarters, with great power; he has good arms, hocks and thighs, is short and sound on the leg; and altogether a low, lengthy and very handsome nag, some consider him as handsome as any horse in England. The Druid author of the Post and the Pad-dock, in speaking of the Knight of St. George, says: Mr. Harry Hall (the great artist) informed me that he is one of the sweetest studies he ever painted from—he is a race horse all over, but his forehead is especially beautiful."

"The Knight of St. George is by Irish Birdcatcher, out of Maltese, by Hetman Platoff; she out of Water Witch, by Sir Hercules; Mary Ann by Waxy Pope; Witch by Sorcerer; Precipitate by Highflier; her dam by Goldfinder, out of Lady Bolingbroke; she out of Cyron (King Herod's dam) by Blaze (son of Flying Childers); Bethell's Arabian; Champion, Darley Arabian, &c.

"It will be seen from the above pedigree

that the Knight of St. George has not a single soft cross in his blood, and his ancestors are all of the best racing families.

"The St. Leger is one mile and three-quarters, and 132 yards. It is for three year olds and is run in September. Weight for colts is 119 pounds, for fillies 114 lbs. The Knight of St. George's time for the St. Leger was 3 minutes and 22 seconds—equal to 1:50 1/2 to the mile; he being three years old with 119 lbs. up. Touchstone's time for the St. Leger was also 3 minutes and 22 seconds. The Baron (sire of Stockwell and Rataplan) was 3 minutes and 25 seconds. As regards time, the most extraordinary performance of the Knight of St. George was when he ran for the Chesterfield cup, over the Goodwood Course, and in which he was beaten only by a head by an Irish Birdcatcher horse, Catspaw. Twenty-one others started, among which was Minceat, winner of the Oaks, and two Goodwood cup winners, Nancy and Juvenile. None of the horses were placed except Catspaw and the Knight of St. George. The Knight of St. George, although only three years old, carried 101 pounds. Catspaw, four years old, carried only 102 pounds. The distance was one mile and a quarter: time 2 min. 13 sec.—equal to 1:46 1/2 to the mile."

Mr. Richards' stables are arranged upon a plan entirely his own. They are surrounded by a broad verandah, beneath which the horses can be exercised without exposure to the sun. Their stalls are large rooms with floors, about which they are free to wander, no halters being used. The groom of each horse sleeps in a bunk close in front of his stall.

While examining the horses, some singular cattle were pointed out in a neighboring field, comprising a bull, some cows and several full blooded calves of a breed indigenous to Syria. Their heads are shaped not unlike a rabbit, and the horns, hardly four inches in length, project horizontally from the temples. The milk of the cows is said to be of surpassing richness. The bull, whose ancestors are the 'bulls of Bashan,' is said to be as swift of foot as a fleet race horse, and his roaring can hardly have been excelled by his Scriptural prototypes. These remarkable animals are fully described in Lieut. Lynch's *Tour to the Dead Sea*."

The Wool Fair at Cleveland.

This took place, as advertised, on the 4th inst. The exhibition probably exceeded anything of the kind ever held in the United States. There were, in all, about sixty competitors. For the tasteful manner in which the wools were arranged, credit is due to Messrs. Goodale & Co. The attendance was quite large, much greater than we had expected to see it. The Committee on Awards was composed of manufacturers—W. D. Coolidge, of Boston; Jesse Eddy, Fall River, Mass.; and Alphonse More, Eaton, N. Y. The Committee say, in their report:

"Where so many lots have been presented to us, all evincing the great care which the growers have bestowed upon their offerings, it has been no easy task to decide upon the two best of each, but after careful investigation, and taking into view the condition and adaptation of each lot for its respective use, we made our awards."

The first class comprised Clothing or Felting Wools. First premium \$30, to Alexander Black, Greencastle, Ind.; second, \$20, to A. Hildebrand, Massillon, Stark county, Ohio. Honorary Mention—P. A. More, Summit county; Wm. Bonar, Knox county; J. P. Gillet, Manchester, Mich.; Alexander Black, Greencastle, Ind.; S. S. Saxany; L. J. Randall, Geauga county, O.; 2 lots; Edward Potter, Trumbull county, Ohio.

Cassimere Wools.—First premium, \$30, Weld & Farnam, Summit county, Ohio; second premium, \$20, P. A. More, Summit county, Ohio. Honorary Mention—Lucius Warner, Medina county; Weld & Farnam, Summit county, M. H. Henry, Summit county; Harvey Baldwin, Summit county, L. J. Randall, Geauga county.

DeLaine Combing Wools.—First premium, \$20, Thos. M. Burnham, Trumbull county, Ohio. Second premium, \$15, William Andrews, Lorain county, Ohio. Honorary Mention—Wm. G. Minter, Harrison county, Ohio.

Flannel Wools.—No entries.

Worsted Combing Wools.—First premium, \$15, George Moore, Lorain county, Ohio. Second premium, \$10, Wm. Hurst, Lorain county, Ohio.

In class F, which comprised from 100 to 1,000 fleeces, a majority of which were to grade super, there was but one entry of 1,000. This was made by Mr. W. Pollock, of Muskingum county, Ohio, and weighed nearly 4,000 lbs. It did not take a premium, because a majority of the wool did not grade superfine. This clip was greatly admired. Mr. P. entered for the highest premium of \$40. The other pre-

miums in this class were given as follows:—W. G. Minter, Hopedale, Harrison county, Ohio, \$10; Uri Oviatt, Richfield, Summit county, Ohio, \$5; Alex. Black, Greencastle, Henry county, Indiana, \$3; D. L. Hadley, Clarksville, Clinton county, Ohio, \$2; Nathan Dagget, South Kirtland, Lake county, Ohio, \$1. The Committee, at the close of their report, say:

"Your Committee cannot permit this occasion to pass without expressing their great gratification at the general appearance and improvement of the wools of Ohio, and from many years of experience, we can truly say that the show of this day surpasses anything of the kind ever brought to our notice. We congratulate the Convention upon the prospects before them of success in persevering efforts to raise this great staple to such perfection and abundance that Ohio shall take the lead in it, and bring back to your great State a rich harvest of wealth and prosperity."

The report caused some discussion; but as the names of the speakers were not announced, we can only mention a few who participated in it; among whom were Messrs. Coolidge, Eddy, More, W. H. Ladd, Giddings, &c. We cannot but feel that such annual Fairs would be of great advantage to all interested in the raising or manufacture of one of the most important staples of the country.—*Ohio Farmer.*

Ringbones in Horses.

Much has been written and said upon this subject; some claim it curable in all stages; others say it is incurable in every stage. In both instances, one manifests as much knowledge of the matter as the other. Ringbones are of two kinds when fully developed, the osseous and cartilaginous. The osseous ring bone is formed by a secretion under the envelop of the *os coronea*. The fibrous ligaments that bind the skin to the envelop, (for there is no muscle there) of the bone, are so short and strong that often the envelop gives way before the ligaments, in which case the secretion will be directly on the bone, and in the process of time, and the change of this fluid, it would become a piece and part of that to which it is attached, namely bone. The cartilaginous ringbone is a secretion between the skin and cartilaginous envelop of the bone. This happens when the ligaments of the skin give way, without loosening the envelop.—A deposit of synovial fluid between the skin or the outer surface and a membrane, could never ossify or become bone. It requires something very peculiar to form bone independent of another. It is not claimed that the synovial fluid imparts nutrition, material or strength to the bones; in fact, it does not come in contact with them without serious injury. No veterinary surgeon would say that he could cure a weeping sinew, a bog, a puff, or a fluid spavin or ringbone. All ringbones are at one time a limpid, synovial fluid; this remaining inactive for some time, becomes glutinous, then cartilaginous, and (if in direct contact with bone) may become osseous. In no instance has ringbone been ossified while in a growing condition. This is likewise the case with a bone spavin. A spavin is always a secretion upon the bone, for the envelop of the metatarsals extends over the square joint, a rupture of which would likely prove fatal to the joint. It is not necessary that the joint should be injured, in order to produce a ringbone; the rupture of a ligature, tendon, or a number of ligaments, will discharge their fluids. The cords of the tail, when severed and separated half an inch, will discharge and form a union, but never ossify. A bog spavin is the same secretion as bone spavin, but never ossifies; wind galls never ossify, because the secretion is held in a sack. Any process that would form bone, independent of bone, would be likely to form an entire horse. And he who claims to cure all ringbones by a medical process, will doubtless fail on some. And he who claims none curable, needs experience.

All enlargements on the *os coronea* are termed ringbone, and may as well be considered so in the first stages, as to let it remain, and call it cartilage in an ossified state. Ringbone, like many other diseases, comes up through a multitude of forms, stages and degrees, to its fullest development. He who fails to cure mortification, should not conclude fever, inflammation, or congestion incurable; and he who cures fever, should not conclude mortification to be curable, until he has experimented on it. Hundreds of valuable horses are now ringboned and spavined, lame and unfit for use, because these two conclusions have deceived them. It is wrong for professional men to go to such extremes; one injures the science, the other injures the practice, and both injure community.—*Dr. W. Pierce, in Ohio Farmer.*

The Wonders of Invention.

Among the thousand marvelous inventions which American genius has produced, within the last few years, are the following, compiled in an abstract from the Patent Office Report. Read them over, and then say if you can, that there is nothing new under the sun.

The report explains the principle of the celebrated Hobb lock. Its "unpickability" depends upon a secondary or false set of tumbler, which prevent instruments used for picking from reaching the real ones. Moreover the lock is powder proof, and may be loaded and fired through the key-hole and fired off till the burglar is tired of his fruitless work, or fears that the explosions will bring to view his experiments more witnesses than he desires.

Door and shutters have been patented that cannot be broken through with either pick or sledge-hammer. The burglar's occupation's gone.

A harpoon is described which makes the whale kill himself. The more he pulls the line, the deeper goes the harpoon.

An ice-making machine has been patented, which is worked by a steam engine. In an experimental trial, it froze several bottles of sherry, and produced blocks of ice the size of a cubic foot when the thermometer was up to eighty degrees. It is calculated that for every ton of coal put into the furnace, it will make a ton of ice.

From an examiner's report, we gather some idea of the value of patents. A man who had made a slight improvement in straw cutters, took a model of his machine through the western States, and after a tour of eight months, returned with \$40,000. Another man had a machine to thrash and clean grain, which in fifteen months, he sold for \$60,000. These are ordinary cases, while such inventions as the telegraph, the planing machine, and india-rubber patents, are worth millions each.

Another examiner's report describes new electrical inventions. Among these is an electrical whaling apparatus, by which the whale is literally "shocked to death." Another is an electro-magnetic alarm, which rings bells and displays signals in case of fire and burglars. Another is an electric clock, which wakes you up, tells you what time it is, and lights a lamp for you at any hour you please.

There is a "sound gatherer," a sort of huge ear-drum, to be placed in front of a locomotive, bringing to the engineer's ears all the noise ahead perfectly distinct, notwithstanding the noise of the train.

There is an invention that picks up pins from a confused heap, turns them around with their heads up, and sticks them in a paper in regular rows.

Another goes through the whole process of cigar making, taking in leaves and turning out finished cigars.

One machine cuts cheese; another scours knives and forks; another rocks the cradle; and seven or eight take in washing and ironing.

There is a parlor chair that can be tipped back on two legs, and a railway chair that can be tipped back in any position without any legs at all.

There is also a patent hen's nest, so completely arranged that the hen is cheated into the belief that it has a real egg to sit upon; although the genuine deposit is carefully stowed away out of her sight.

Another patent is for a machine that counts passengers in an omnibus and takes their fares. When a very fat man gets in, it counts two and charges double.

There is a variety of patented guns that load themselves; a fishing line that adjusts its own bait, and a rat trap that throws away the rat, and then bits itself and stands in the corner for another.

There is a machine also, by which a man prints, instead of writes, his thoughts. It is played like a piano-forte. And speaking of pianos, it is estimated that 9,000 are made every year in the United States, giving constant employment to 1,900 persons, and costing over \$2,000,000.

Cat Mountain Wheat.

H. P. Hitchcock, Esq., has left at the office of the Hillsdale *Standard* a sample of wheat called "Cat Mountain Wheat," raised in Virginia, and gives us the following account of his experiments in introducing this new article of wheat.

In the fall of 1856, he sowed about a half pint, which he obtained from the Patent Office at Washington, from which he raised and sowed three quarts in the fall of '57; from which he sowed three bushels, (on three acres) last fall, and has this season harvested seventy-two bushels, which weighs 67 lbs. to the bushel. It is a white kernel, medium size and very hard. Mr. H. offers a portion of this wheat for seed at Bostwick & Co.'s store.—*Hillsdale Standard.*

The Garden & Orchard.

Fruits in Season.

PEARS.

Amire Joannet, (Early Sugar, Harvest Pear,) is the earliest pear of any value, and is chiefly valuable on this account. It is said by Downing to be in season the first of July; but, in this climate, its season is slightly later. It is small, but delicate and juicy, when mature, soon becoming dry and mealy, notwithstanding which it may be considered desirable to plant a tree of it, even in a moderate collection; as the first ripe pears are usually so much sought after that they will have little chance of becoming stale. The tree is a good grower, and, with the writer, appears, upon only two or three years' trial as a dwarf, to do well on the quince. Barry, in his "Fruit Garden," recommends it for this stock, but other writers are silent concerning it.

Madeline, (*Citron des Carmes*), is an old French variety, which still maintains its place as the earliest good pear, although it is by no means equal, in either quality or size, to many later varieties. It ripens here during the last half of July, and will sometimes continue during the first week of August. According to Downing, it derives its name from its being in perfection, in France, at the feast of St. Madeline. Its synonym, *Citron des Carmes*, according to the same authority, comes from its having been first cultivated by the Carmelite monks. The tree is a beautiful, pyramidal and vigorous grower; and, as it is exceedingly prolific, it must prove profitable for the market. It grows finely upon the quince, for a few years, but is not considered permanently successful on this stock.

Doyenne d'Ete, (Summer Doyenne,) immediately follows the above, to which it is decidedly superior, both in appearance and quality, although inferior in size. This is a variety of recent introduction; and, although the tree is a fine grower and an early bearer, its adaptability to market purposes is yet undecided. It succeeds alike on pear and quince.

Bloodgood is an American seedling, brought out about twenty-five years since, by a nurseryman of that name, at Flushing, near New York. It is of unattractive appearance, and of only medium size; but, in quality, unequalled in its season. The tree is only a moderate grower, but hardy; and, like the *Madeline*, is so distinct in its habit and appearance as to be easily recognized among others. It is an early bearer, and so prolific as to be considered desirable for the market. It ripens here, mostly, during the first two weeks of August; and is now just going out of season. It succeeds equally well on pear and quince stocks.

Dearborn's Seedling is another American variety, which was originated in 1818, by the Hon. H. A. S. Dearborn, of Boston. It is now just coming in season, and will continue through August, and perhaps longer. The fruit is rather below medium in size, very smooth and regular in form, and pale yellow in color; rivaling the *Bloodgood* in quality. The tree is a fine, pyramidal grower, and very prolific. It is unsuccessful on the quince. As a market fruit, it is too small to be popular.

T. T. LYON.

Plymouth, August 18th, 1859.

The Pests of the Orchard.

In the article under this heading, published in your issue of August 13th, the writer stated his belief that the Apple Tree Borer, found in the branches of large apple trees, is always identical with the one usually found at or near the collar of the tree. Subsequent examinations, however, have satisfied him that, although usually, or at least, occasionally the same, an insect does exist, essentially different from the true *Saperda bivitata*; although the larvae are quite similar in some of their habits.

The eggs of this interloper appear to be deposited in some fissure or inequality of the tree; and, when hatched, the larva immediately bore so deeply into the bark and wood, that no indication of the place of entrance is visible, except a small aperture for the ejection of the excretions; which are much more coarse and fibrous than those of our former acquaintance.

The larva are of about the same length as the true *Saperda*, but rather lighter in color, while the head is not enlarged, and the head and body not flattened, as with that insect. The body is also somewhat larger, requiring the removal of more wood to permit a passage; for which purpose he seems endowed with a greater degree of voracity. Those observed by the writer were apparently from last year's brood, as they had, obviously, wintered in their present locality. They had, at first, burrowed in the last year's sapwood, but so deeply that from this cause and the limited range, the bark above had retained its freshness, and had formed new wood above their

castings during the present season. After acquiring their full size, (apparently the past spring,) they bored their way directly into the heartwood; and, when cut out, a few days since, had opened their way upward, near the heart, from three to five inches; leaving the branches in imminent danger of being broken down by the autumn winds.

The true *Saperda* confines himself chiefly to trees of diseased or stunted growth, thus offering strong inducements to thoroughness of cultivation; but the new comer, if not really partial to healthy, vigorous trees, is obviously quite "at home" in such, while the rapidity of his operations, and the depth to which he penetrates, renders the process of removal a dangerous one for the health and permanency of the tree or branch in which he makes a lodgment.

Plymouth, Aug. 18th. 1859.

T. T. LYON.

The Best Kinds of Shade Trees.

It is now too late in the season to set out shade trees, unless evergreens come under this head, but it is a good time to decide upon the relative merits of the different kinds, so that there need be no mistake made when the proper time for transplanting comes round.

Most trees are now nearly in full leaf, and display their foliage to the best advantage. Some of them may cast a somewhat deeper shade in July, but the dust and hot sun of midsummer discolor the brilliant tints of the *chromule* or coloring matter of the leaves, and striking contrasts of the spring foliage give place to a more uniform and subdued tone of color.

In selecting shade trees, especially to set along country roads or village streets, several considerations should be attended to: they should be of tolerably thick growth, cast a deep shade, throw up no suckers, be the natural breeding-place of as few insects and worms as possible, and be neat and elegant in their details and ensemble. If to these qualities, positive and negative, any tree should add that of producing something serving as a source of income or an agreeable article of food, it may be considered perfectly adapted for the purposes of shade, ornament and utility.

Fashion has something to do with shade trees as well as with architecture, equipages, dress and such matters. In the last century the buttonwood was the fashionable shade tree, though it has nothing to recommend it except its deep shade and quick growth; it has no beauty in leaf, limb, trunk, or as a whole; its bark exfoliates in large patches and litters the ground underneath—ditto its cotton balls or catkins. Most trees are graceful even in winter, but the branches and spray of the buttonwood, or occidental plane, are never graceful. The old trees are usually inclined several degrees from the perpendicular, owing to the prevailing southwest wind of summer acting on their broad leaves; such an inclination may give a certain interest to the tower of Pisa, but is not attractive in trees. If the buttonwood finally becomes extinct through the mysterious disease that has attacked it of late years, it can well enough be spared. We have better shade trees and few worse.

Of late years fashion has given to the elm the place once occupied by the buttonwood, and a very sensible change it was, the poorest specimen of the former tree being much more beautiful, as well as neater than the best specimen of the buttonwood. Young elms are always graceful, and old ones frequently magnificent. They bear transplanting extremely well and grow rapidly, but are infested by a great variety of worms and insects, some of the former being three or four inches in length, and correspondingly ugly in appearance. Besides this drawback, the elm does not leaf out so early as many trees, produces no useful fruit or food, and is not therefore perfect as a shade tree.

The sugar, or rock maple is beginning to attract something of the attention it deserves; it is undoubtedly our best ornamental and shade tree. The *Acer saccharinum* unites all the qualities necessary to a perfect shade tree; it grows vigorously, casts a deep shade, sends up no suckers from the roots, harbors no insects, is elegant in youth and age—in leaf, limb, trunk and spray. No other tree has so rich a green in spring and early summer, and its autumnal colors are unsurpassed in richness; it is in full leaf nearly a fortnight earlier than the elm, is very valuable as timber, and after a certain age its sap can be boiled down into sugar. With so many valuable qualities it is surprising that the sugar maple should have been so long comparatively neglected. If a double row of these trees had been planted thirty years ago along every road in Massachusetts, we should now be independent of Louisiana and Cuba as far as sugar is concerned. Of the beauty and comfort of such leafy avenues we know nothing by experience, but can imagine, in some degree, their effect. It is useless to regret what was left undone thirty or forty years

ago, except so far as it leads to a determination that the rising generation shall have no cause to complain thirty years hence of a lack of the best shade trees.

We have given our reasons for believing that the sugar maple ought to take precedence of all other trees for ornamenting our streets, but almost any trees are better than none along the dusty roadside. It may sometimes be difficult to obtain the sugar maple, and in such cases the common or red maple, the ash, the elm, the locust, the chestnut, the beech, will serve as substitutes.—G. S., in *Taunton (Mass.) Gazette*.

The Forget-me-Not.

Myosotis; L. Grenillet ou Scorpionne; Fr. Vergies mein nicht; Ger. Kruidig muizenoor; Dutch. Oogchlo de top; Ital. Miosota; Sp. Myosota; Port. Dukowka; Russ. Forgiest nicht; Dan.

"That name, it speaks in accents dear
Of love, and hope, and joy, and fear;
It softly tells an absent friend
That links of love should never rend;
Its whispers waft on swelling breeze,
O'er hill, and dale, by land and seas,
Forget-me not!"

"Gem of the rill! we love to get
Thy blossoms smiling at our feet.
We fancy to thy flow'ret given
A semblance of the azure heaven;
And deem thine eye of gold to be
The star that gleams so brilliantly."

Bouquet des Souvenires.

The romantic story with which the Forget-me-not is connected has made it known to thousands who, perhaps, would never otherwise have become acquainted with its existence. Independent, however, of the fame thus attached to it, when once seen and noticed, its own beauty would gain for it a place in the memory. The bright blue of the flowers, and their rich golden centres, render them individually an object to be admired; and as they gradually unfold themselves at the curled extremity of the stem, where they are ranged in two rows, and alternately, on foot-stalks, their appearance is truly beautiful; but when the plants in bloom are so numerous as to form a sort of fringe on the margin of a rivulet, as we have seen them, words cannot convey an adequate idea of the effect. They are, in truth, very ornamental to our streams and ditches, and cannot fail to win favor of every ramble who trols where is seen,

"By rivulet, or spring, or wet road-side,
The blue and bright-eyed flower of the brook,
Hope's gentle gem, the sweet 'Forget-me-not!'"

The incident already referred to as having rendered this flower so well known, and which we are told gave rise to its present name, is said to have occurred on the banks of the Danube. Two betrothed lovers were strolling along, on a pleasant summer's evening in the delightful month of June, engaged in agreeable and affectionate conversation, when they observed the pretty flower of the Water Scorpion Grass apparently floating on the water. The bride elect looked upon the flower with admiration, and supposing it to be detached, regarded it as being carried to destruction; her lover, regretting its fate, and wishing to preserve it, was induced to jump into the river; but as he seized the flower, he sunk beneath the stream: making a final effort, he threw the flower on the bank, repeating, "Vergiss mich nicht." Since this event, the Germans have called the flower *Vergissmichnicht*, and we, translating the word, Forget-me-not.

The circumstance whence this flower derived its name, and the name itself, have made it a favorite with German poets. Goethe, in his "Lay of the Imprisoned Knight," represents it to be the choice flower of the lady whose praises are rehearsed. We insert Lord F. Leveson Gower's translation of these lines—

"Ah! well I know the loveliest flower,
The fairest of the fair,
Of all that deck my lady's bower,
Or bind her floating hair.

"Not on the mountain's shelving side,
Nor in the cultivated ground,
Nor in the garden's painted pride,
The flower I seek is found.

"Where time on sorrow's page of gloom
Has fixed his envious blot,
Or swept the record from the tomb,
It says, Forget-me-not.

"And this is still the loveliest flower,
The fairest of the fair,
Of all that deck my lady's bower,
Or bind her floating hair."

The Forget-me-not grows on the banks of the Avon, and an English writer has compared its rich color to the eye of his beloved:

"To flourish in my favorite bower,
To blossom round my cot,
I cultivate the little flower
They call Forget-me-not.

"It springs where Avon gently flows,
In wild simplicity,
And 'neath my cottage window grows,
Sacred to love and thee.

"This pretty little flow'ret's dye,
Of soft cerulean blue,
Appears as if from Ellen's eye
It had received its hue.

"Though oceans new betwixt us roar,
Though distant be our lot,
Ellen! though we should meet no more,
Sweet maid, Forget-me-not!"

We have also observed the Forget-me-not here and there blooming on the reedy margin of the shallow Dearn, as it winds along its

tortuous course through the broad vale which bears its name, in Yorkshire; but no where have we seen it so abundant and in such luxuriance as on the classic banks of the Cam and the Granta, along with the yellow Water Lily (*Nuphar lutea*), and the yellow Iris (*Iris pseudo-acorus*); and in the moist ditches of the fields adjacent to them, in Cambridgeshire.

The generic name *Myosotis*, is compounded of two Greek words, signifying mouse ear, to which its leaves are thought to bear a close resemblance. It flowers profusely during the months of June, July and August; and the lower part of the stem, which is from one to two feet high, is generally below the surface of the water. The whole plant is covered with soft, white depressed hairs. The German Speedwell is frequently mistaken for it, but a comparison of the two will immediately show the difference; and the distinctions once noted are not likely to be forgotten.

The Forget-me-not, which was formerly known as Mouse-ear Scorpion Grass (*Myosotis palustris*), belongs to the Linnean class *Pentandria* and order *Monogynia*, and is included in the Natural system in the order *Boraginæ*.—*The Wild Flowers of England*.

French Mode of Raising Tomatoes.

The best French gardeners are quite particular about stopping their plants, so that as nice a balance may be maintained between fruit and leaves as in a peach tree. They are not satisfied with mere topping as soon as there is plenty of flowers, and of pinching off laterals afterwards. Their method is this.—As soon as a cluster of flowers is visible they top the stem down to the cluster, so that the flowers terminate the stem. The effect is that sap is immediately impelled into the two buds next below the cluster, which immediately push strongly, and presently produce another cluster of flowers each. The moment they are visible the branch to which they belong is also topped down to their level; and this is done five times successively. The effect is to form stout dwarf bushes, not above eighteen inches high. In order to prevent their falling over, sticks or strings are stretched horizontally along the rows so as to keep the plants tolerably upright. In addition to this, all laterals that have no flowers, and after the fifth topping, all laterals whatsoever are nipped off. In this way the ripe sap is directed into the fruit, which acquires a beauty, size, and excellence unattainable by other means, and we are assured that fourteen pounds of ripe tomatoes per plant, is no very unusual produce; over sixteen pounds being known.

Whether or not this exact method is suitable to our climate may be doubted; but the soundness of its principle is beyond dispute. Five successive topplings are more than our short summers will justify, except in very hot dry places; three we should consider quite enough; for, although the fourth and fifth topplings would doubtless increase the quantity of fruit, yet there is little probability of such fruit ripening well, and it must be safest to direct the energies of the plant to bear a smaller quantity of the highest excellence that our soil and climate can secure, in a species which grows best in a country where the summer heat rises to 100° and does not fall below 50°, with a mean heat in the warmest month of 77°.—*Gardeners' Chronicle*.

HORTICULTURAL NOTES.

Grafting the Vine.

From a series of experiments, related in the *London Gardener's Chronicle*, a conclusion is deduced that by grafting the vine, when in its state of vegetation is such that bleeding ensues, the consequence is a complete failure; on the contrary, when the operation is performed after the buds of the vine have burst into leaf, when no bleeding takes place, the flow of sap being then readily taken up by the foliage, complete success is the result.

Farfugium Grande.

This plant has won its way, during the last two years into nearly all the conservatories of Great Britain. "As a decorative plant for the green house, all the year round," says a correspondent of a London paper, "it cannot be surpassed." Its bright green shining foliage blotched with beautiful yellow has an excellent effect, and renders it a good substitute for flowers. As a contrast with scarlet geraniums, its effect is very fine and most attractive. As a house plant it is extremely valuable, as it stands close confinement with remarkable impunity.

Toads and Squash Bugs.

The Ohio Farmer relates the following relative to the uses of the toad in gardens:—"Observing a toad, one day, beneath a squash vine, we saw him thrust out his tongue, and capture a squash bug—*Cercus tristis*. As the smell of this insect is anything but fragrant, we naturally thought the toad's conception of the agreeable was different from ours. We cut from the vine a leaf, on which there were a number of bugs, and laid it before him, and it was really droll, the way he turned his head and looked at us. In a few moments he gave a hop nearer the leaf, then out went a bug. Again and again this was repeated, until none were left. The gourmand seemed to smack his lips over the feast of fat things provided for him. Whenever a bug would

crawl to the top, the eyes of the toad would kindle and his whole form partake of the excitement.—Then he was really handsome, in our eyes, and we really wished that his race would give over eating bugs, and take exclusively to bugs, and other noxious insects."

The Curculio on the Peach.

The Ohio Valley Farmer notes that an extensive peach orchard owned by John Loughry of Rockville, Ohio, has been almost deprived of its entire crop this season by the ravages of the curculio.—This, however, occurred principally in an old orchard. In a young and new orchard, the insect did not work, and a good crop was taken from it.

Bulbs.

Those who are desirous of having a good display of bulbous roots and flowering plants should make their preparations now, by getting their beds ready, and setting out the roots. One of the very first requisites in making a bed for bulbs, is to have the soil light, rich, friable, rather inclined to sand, deep and dry. Nothing adds so much to the appearance of a garden in the early spring as a good many clusters of the Hyacinth, the Daffodil, the Narcissus and the Tulip, especially the latter. To give them time to get set and fairly started, these should all be in the ground by the first week in September at the latest. Some two years ago we published a list of very choice varieties of different colors which we had noted whilst in flower in the large collection of Mr. J. Dougal of Windsor, C. W. We reprint it at this time, as it may serve as a guide to some of our readers who may feel disposed to make a selection for the purpose of setting out this season, and we commend them to Mr. Dougal for farther information, as he has one of the most extensive collections of Tulips in the neighborhood of Detroit.

The list is as follows:

1. *Rose Domingo*, large, lilac stripe, with much white.
2. *Reine des Violettes*, white and purple, very beautiful.
3. *Waterloo*, a dark mahogany shade.
4. *Romeo*, a rose tulip, large blossom.
5. *Georgius tertius*, light rose color, with much white.
6. *Secker* and *Semper Augusta*—both yellow with deep mahogany stripes.
7. *Whittaker's White*, white and large, with a very perfect flower.
8. *Albecque*, white, with lilac stripes.
9. *Catalpaque*, a very dark crimson.
10. *Finlayson's Hampden*, a dark crimson, well shaded.
11. *Bizarre Incomparable*, a dark red with yellow stripes.
12. *Pussay's roi de Congo*, a very handsome flower, very yellow.
13. *Cecilia*, white, and light crimson.
14. *Washington*, a bybloman of deep purple.

DOUBLE VARIETIES.

15. *The Double Scarlet*, very handsome, and necessary.
16. *General Warranschaff*, a double yellow.
17. *Blanc Brodee Pourpre*, very handsome, purple and white.
18. *Bonaparte*, bright crimson rose.
19. *Violet a tonia*, rich full flower, of a violet color.
20. *Dougall's Bonaparte*, yellow and dark red.

Spinach.

Those who desire to have early greens must now get ready their ground for the sowing of the winter spinach. The spinach should have a good, deep, dry, rich soil. Any ground in the garden from which a crop has been cleared and again well manured, will grow spinach. The market gardeners mostly sow it broadcast, but drills are the best, as they permit the ground to be weeded and kept clean, although it is not a crop much troubled with weeds, or which is difficult to keep clean. As the chief merit of the spinach is in the tenderness and succulence of its leaves, any method that will promote that at a time when there are no other greens or fresh vegetables to be had except those grown under glass, should be followed. High manuring promotes this.

The drills of the spinach when sown should be an inch and a half deep and two feet apart, each plant being thinned to the distance of eight inches or a foot apart. The seed for this crop should be sown not later than the middle of September, and when the plants come up and seem too thick, they should be thinned so that they will stand from eight to twelve inches apart in the rows. The thinning is mostly done in the latter part of October. The kind to sow for spring crops is the prickly spinach. There are a few other kinds but they are not so hardy, and do not stand our winters as well.

The leaves of the spinach are alone used for cooking purposes, and when pulled in the spring it is the lower ones that are always to be taken off first. They are cooked by boiling, and are served up as greens; coming in as they do before any other kind can be had, they are very grateful to the palate. A small bed should be prepared for the growth of this plant in every good garden.

FOREIGN AGRICULTURE.

Steam Tillage in Europe and America.

FROM THE COUNTRY GENTLEMAN.

[For the following remarks on this subject, including a full description of Mr. Fawkes' new Steam Plow, we are indebted to President Kennedy of the Polytechnic College, Philadelphia:]

In common with many who have had the good fortune to be present at the 5 days' public exhibition of Fawkes' Steam Plow just closed, I have been reminded by the scene, of the description given of the starting of Fulton's pioneer steamer on her experimental voyage to Albany. The two events have indeed many points of resemblance. That was the dawn of the era of successful steam navigation. Half a century has rolled round, and we stand at the opening of the grand eventful era of steam cultivation. One Pennsylvanian triumphed over the tempest and the tide. Another now triumphs over the wasteful powers of the wilderness, and rides the conqueror of the prairies. Verily, Lancaster county, proud as she is of her Calhoun and Buchanan, will be prouder still of her Fulton and her Fawkes, whose birth places are but 12 miles apart, and within her wide borders.

Let us not, however, amid our exultation, claim too much. It is not contended by Mr. Fawkes or his friends that he is the first to conceive the idea of applying steam to the cultivation of the soil. There was, if I mistake not, a steam plow at the London Exhibition of 1851. But it awakened no attention. Farmers went there, not to see it, but to see McCormick's American Reaper! In all the magnificent palace of industry, that was the grand agricultural attraction. Well do I remember hearing a jolly English farmer, as he stood with his hands in the pockets of his "box coat," surveying the reaper, say, "T'will be a pretty good sort of a thing after we've improved it." How I might have retaliated by going over to the English steam plow and saying the same thing. But America has done far better than to improve on an English model. Mr. Fawkes has invented a machine, new in principle, and distinct in its mode of operating. Let me explain. The great difficulty in the way of success in plowing by steam, is expressed in one word, TRACTION. The English early tried two broad tired driving wheels, but these sank too deeply into moist and loose soil, and of course failed. Mr. Boydell, who deserves immortality for his unceasing efforts and liberal expenditure, conceived the novel idea of running his engine on rails, to be laid down and taken up by the engine itself. This he accomplished by hinging seven or eight stout, flat, wooden rails together by both ends, so that they would form a polygon, outside and in the same plane with the driving wheels, and revolving with them, each rail in turn being laid down in front and taken up behind its proper driving wheel as the latter rolled over it. In this very ingenious way Mr. Boydell gets traction, but at a great expense of power. Mr. Bray, another Englishman, adopts a similar plan. Owing probably to the high cost, great loss of power and expense of working on soil, the English Agricultural press have, during the last year, practically abandoned the idea of using traction engines for tillage, and have advocated the inventions of Fowler, Williams and Smith, on the cable principle. The engine is similar to our powerful portable farm and saw-mill engines, and is provided with a drum revolving horizontally between the four wheels. This engine is placed, for plowing, in one corner of a large field, a tender with a similar drum is placed in the next corner, and over the drums of both engine and tender an endless wire rope passes. To this rope a gang plow is attached, which, by the revolution of the rope, is made to travel between the engine and tender. These are moved regularly down the opposite margins of the field which is thus gradually plowed. The other cable machines slightly differ from Fowler's, by having the cable to pass entirely round the field, instead of across it. Smith's machine costs about \$2,500 at the factory, will plow seven acres a day, and requires the attendance of an engineer, six men, and a horse and cart to bring water. Fowler's machine costs \$2,800 at the factory, will plow eight acres a day, and requires an engineer, four men and a boy to attend it.

As I write, the mail brings me the report of the grand trial of steam plows, for the prize of the Royal Agricultural Society of England, just held at Warwick. We have therefore the latest reliable information of the performances of the best English machines. But one traction engine competed, that of Mr. Romaine, which is a return to the old and very properly discarded plan of two driving wheels, and therefore need not be described; especially as the report says it is

"practically inefficient, even after the vast sums expended on it."

The prize was awarded to Fowler's cable machine, "for the most economical application of steam power to the cultivation of the land." For the purpose of comparing the best English steam plow with the American, I quote from the same report, that "on a stiff, badly drained piece of seed land, having an incline of one foot in ten, it broke up 2 roods, 16 perches per hour, at a depth of about six inches," that is exactly three-fifths of an acre per hour.

DESCRIPTION OF FAWKES' AMERICAN STEAM PLOW.—The body of the engine consists of one horizontal, quadrangular frame of iron, about twelve feet long by eight wide, which rests upon the axles of a roller. This roller which is six feet in diameter, and six feet long, is the driving wheel of the engine. In front of the roller, and bolted with the frame, is the boiler, which is upright, surmounted by a dome and pipe, and so constructed that steam may be got up in fifteen minutes. Thirty minutes, however, are usually required. Over and behind the driving roller is the water tank, which is of the entire width of the engine frame, contains twelve barrels, sufficient to supply the boiler for five hours, and is so situated that when it and the boiler are full, they counterbalance each other upon the roller. Attached to the frame in front of the boiler, and tapering forward and slightly upward, like the bow of a boat, is a sheet iron receptacle for coal. Here is also a seat for the fireman, the whole bow resting on two guide wheels of fifteen inches tread, and four feet diameter. Bolted to the under side of the frame, as frequently seen in locomotives, and on each side of the upright boiler, are the cylinders, each nine inch diameter, and fifteen inch stroke, the piston rods of which are so geared to the crank of the roller that it revolves once for every six strokes of the piston. Great regularity of motion, increase of motive power, and control over movement of the engine backwards and forwards, are secured by this arrangement, while the guide wheels, which may be turned at pleasure, by a steering wheel in charge of the engineer, almost at right angles, under the bow of the machine, permit it to turn in a circle, the radius of which is equal to the length of the engine, eighteen feet. By a small independent "donkey engine," which is placed between the tank and the boiler, the latter may be filled from the former, or the tank itself be through a hose supplied from a well or brook. Into the beams projecting from the rear of the engine, pulleys are let, over which chains pass, whereby a gang of eight fourteen inch prairie plows is suspended; a wheel on the beam of each plow regulates, as usual, the depth of the furrow, and the whole gang may be raised or lowered by a lever within the reach of the fireman, who, with the engineer, constitute the entire force needed to work the engine and plows.

The machine was tested on timothy sod which had not been plowed for seven years. At a given signal from the whistle, the fireman lowered the plows to the ground, which having entered, they were drawn forward up an incline of about seven degrees. They were lifted promptly at the margin of the land appropriated to the trial, the machine turning easily; again they were lowered and the plowing resumed, in as short a time as could have been done with a single plow and a pair of horses. The mean rate of speed was four miles an hour, and the united furrows were 9 feet 4 inches wide; a strip four miles long, 9 feet 4 inches wide, equals 197,120 square feet, which divided by the number of feet in an acre, gives almost exactly 4 3-10th acres per hour.

Allowing for the time lost in turning, and all other necessary delays, the engine proved itself fully capable of plowing thirty acres a day. The amount of fuel required being, according to the engineer, a half ton of coal, or the equivalent in wood. The plow was run over gullies and abrupt elevations, and stood every test in the most satisfactory manner. Its performance proved its perfect adaptation to prairie cultivation, and to the tillage of large fields. By a very simple arrangement, the roller, which is composed of wooden staves bolted to open iron heads, may be lifted from the ground, and geared, directly to the piston rod. It thus becomes a rapidly revolving drum, over which a band is passed, and the whole converted into a farm engine for driving saws, thrashing machines, sugar and grain mills, &c. This ready conversion of a plowing locomotive into a farm engine, multiplies vastly the uses of the machine.

To conclude: The American machine will easily and regularly plow three acres an hour, with the aid of two men. Fowler's English prize machine may be made to plow three-fifths of an acre an hour, with the attendance

of five men and a boy. That is to say, Fawkes' with two men, will plow five acres in the same time that Fowler, with five men and a boy, will plow one. That this is the "most economical" of English machines is attested by the highest authority; but we guess that an American farmer would place a plow and a pair of horses each, in the hands of "five men and a boy," and beat Mr. Fowler long before sunset. Let then the record stand, that at the present time the only economical and practical application of steam to tillage, is of American invention.

The Great English Agricultural Show.

BY SANFORD HOWARD, OF THE BOSTON CULTIVATOR.

My last, written in great haste, I think closed with some mention of the Long-horn cattle exhibited at Warwick. There were some other rare breeds represented. An Angus bull (polled) though scarcely as handsome as some of the breeds I have seen, was of great weight and substance. Col. Pennington, of Penrhyn Castle, near Bangor, exhibited a black (horned) bull of Welsh breed (particular variety not mentioned) which was one of the heaviest bulls on the ground, and of excellent shape and quality. There were several handsome cows and heifers of the Norfolk polled breed, a few of the Sussex, several Jersey and Channel Islands bulls, but only one cow or heifer of the latter breed. A couple of heifers in milk, of the Bretonne breed, from France, attracted great attention. They were of less size than any other cattle I ever saw, not being scarcely larger than ordinary calves of two months old, black and white in color, very pretty in form, and with almost the delicacy of skin and hair of an Italian greyhound. They were the admiration of the ladies, who seemed almost inclined to adopt them as pets in the place of lap-dogs.

The sheep classes were perhaps better than last year. In the South Downs, Jonas Webb is again in the field, and as might be expected, his presence is obvious. The Duke of Richmond, however, takes the first prize on rams, Mr. Webb taking the second and third. The Leicesters appear to have rather more substance than those shown last year, but have very little muscle, in general. A bystander remarked in regard to one of the prize rams, that "he had no leg of mutton." Some of them have even more clear fat in proportion to the lean meat, than well-fattened swine usually have. Some animals shown in this class by Mr. Valentine Burford, of Foscote, near Towcester, Northamptonshire, were regarded with interest. They are said by Mr. B. to have been bred entirely from the flock of Robert Bakewell and his nephew Mr. Honeybourne, from the year 1783 to the present time, and he presents a table comprising the pedigree of every ram used in the flock in that time. Mr. B. believes that Mr. Bakewell obtained the best model of a sheep for making most meat at least expense, and he has therefore been desirous of preserving it. In regard to his course of breeding, he says: "This flock being bred from the nearest affinities—commonly called in-and-in—has not experienced any of those ill effects frequently ascribed to the practice. The males have been paired on principles upon which it is believed that improvement depends; have been kept entirely in a state of nature; fed on vegetable food only (grass, hay and roots); and are open for inspection at all times of the year." He thinks this is the only flock in the kingdom that can present an unbroken pedigree from the time and stock of Bakewell. The sheep shown by Mr. B. had just been shorn, as closely as possible, in order to show their natural shape—a plan quite opposite to that generally employed here, by which the animals are "clipped into shape," as it is called, and by which the eyes of superficial observers are often deceived. Mr. B.'s sheep were certainly very handsome, corresponding more nearly to the rules laid down by Bakewell than any other sheep I have seen. They were not overloaded with fat, and their flesh seemed quite firm, having a better proportion of muscle than some other Leicesters. They were not large, but of fine size. The chief fault which I noticed in them, was the neck being set rather too low on the shoulders. I could not, of course, judge of the quantity and quality of wool, but it appeared to be very thick set.

The Cotswolds were out in all their attractions—enormous size, and a fatness and weight of carcass which their legs could hardly support. Mr. Garne, of Aldsworth, Northleach, is the leading prize-taker. The Oxfordshire Down (not "New Oxfordshire," which some wooden-nutmeg chaps in America talk about,) made a fine display. Mr. Samuel Drace, of Eynsham, near Oxford, takes the first prize for aged rams. The Shropshire Downs look well, as do many of the

Hampshires. My opinion of last year on the value of the Shropshire and Oxfordshire Downs is fully supported on a re-examination.

Two or three Merino rams were exhibited and seemed to be regarded by the crowd as curiosities—not one person out of a thousand perhaps, of those at the show, having ever seen a specimen of this breed before.

The swine were numerous, and generally good, though those of enormous size were not so common as at the Chester show last year. The Essex, or that variety of it bred by Thomas Crisp, of Butley Abby, Suffolk, and others, were generally the best of the medium-sized stock. There were some good Berkshires, and some very pretty specimens of the Tamworth breed—the color brownish-red with small black spots. White pigs, of the Suffolk, Yorkshire, and Cumberland breeds, were numerous, and in many instances very good.

In regard to horses, those in the agricultural classes were considered better than at Chester. Some of them were of wonderful size—upwards of 2,000 lbs.—and of good symmetry; but it is difficult to see why such immense animals should be used in agriculture. Those of less weight and more activity would generally be more profitable. The Suffolk horses, though what would be called very heavy in our own country, are not of the heaviest class, and are considered well adapted to farm purposes. There were some fine ones in the show. The mare which took the first prize, belonging to Mr. Charles Frost, near Ipswich, Suffolk, was superior to any of the breed I have seen before. Several of the entire horses in this class were very good, but in point of symmetry and in activity, they do not seem equal to the Clydesdales of Scotland. Such, at least, is the conclusion I have come to so far as I have an opportunity for comparison.

Prizes were offered for thoroughbred stallions for getting hunters, and several specimens were brought out. They were mostly long-shanked, broken-kneed animals, of rather elegant outline, and apparently of high nervous energy, but wanting in hardiness and substance. They may get hunters, but there is nothing about them to justify the idea that they would get good roadsters.

Prizes were also offered for the best mares for breeding hackneys, and some very good animals were brought out, but nothing like what could be seen at almost any county show in Vermont, or like what Essex county, Mass., brought out last year—either in numbers or quality. The fact is, the Yankees are decidedly ahead of John Bull in this kind of stock, however behind they may be in others. I see evidence of this fact wherever I go, and even the English themselves are becoming aware of it. They are turning their attention to the use of American trotting blood for the improvement of their roadsters, and if judicious selections are made, good results will unquestionably follow.

A long line of "ponys" competed for prizes. Some of them were splendid little animals for which almost fabulous prices were asked, and in some cases paid—as high as £75 to £100 each.

The implements as arranged in sheds with avenues between, might have been measured by miles, but a minute examination of them would have been a work of immense labor—I noticed no special novelties in this line. The machines for steam cultivation appeared to be somewhat simplified since last year, and in this respect improvement may be assumed. I was informed that the performance of the steam plows and cultivators was more satisfactory than on previous occasions. I had not the opportunity to witness the trial.

I mentioned last week that I had just shipped twenty-three head of Ayrshire cattle for H. H. Peters, Esq., of Southborough, and nine Black-faced Mountain sheep for Isaac Stickney, Esq., of Boston. The cattle are from the best herds in Scotland—as that of Lawrence Drew, of Merryton, near Hamilton, Lanarkshire, Geo. Richmond, of Scotson Muirs, near Glasgow, and others in that vicinity, John Parker, of Netherbroomlands, Irvine, Ivie Campbell, of Dalrigg, near New Cumnock, Jas. Craig, of Polquhays, near New Cumnock, John Mickle, of Brownhill, near Tarbolton, and other Ayrshire herds. With the stock (seven full-bloods) which Mr. Peters already has on his farm, this lot will probably constitute the largest herd of Ayrshires in America, and it is to be hoped that his trials of the breed, with other experiments that are going on, will settle the question of their adaptability to our climate and purposes.

I may mention in this connection, that I have been fortunate in having had the assistance of Mr. Thomas Bell, of the Adelphi Stables, Liverpool, in the shipment of stock, both this year and last. Mr. B. has had much experience in this business, has thorough prac-

tical judgment in all matters pertaining thereto, and I think I am doing a service to my countrymen who may engage in the importation of live stock, by recommending Mr. Bell as every way qualified to carry out their wishes.

The hay crop is now chiefly secured in the kingdom. In some parts of England, where timely showers fell, it is pretty good, though hardly an average. In Scotland and most parts of Ireland, it is the lightest crop that has been had for upwards of thirty years.—Wheat looks well generally, in England, and the same may be said of oats, but in Scotland, where the drouth has been much more severe, these crops must be light—oats very light. The turnip crop, so important in this island, must be nearly a failure in Scotland.

The weather has been very hot for this country—thermometer 80 degrees in the shade. Yesterday there was much thunder with rain and considerable hail, which did some damage to the crops.

FARM MISCELLANEA.

The Cleveland Wool Fair.

The only Michigan exhibitor we see noticed at the Cleveland Wool Fair is J. P. Gillett, of Sharon, in Washtenaw county, who had a lot in the class of Clothing or Felting wools. We perceive by the notice we take from the Ohio Farmer, that will be found in another column, that most of the wools shown were from Ohio. Indiana wool predominated after Ohio.

The London Horticultural Society.

Arrangements have at last been perfected by which this Society are to have a lease of the grounds at Kensington Gore, near London, and a fund of \$250,000 raised by government debentures, to make and establish such ornamental gardens and grounds as shall be adapted to the wants of the Society. Included in the design is a great winter garden that shall exceed anything of the kind that has yet been attempted in any public institution.

Shoeing Horses for Over-reach.

I am a young farmer, though an old man. I worked thirty-five years at blacksmithing, and now have to learn how to farm. I have noticed what has been said in the Ohio Cultivator about shoeing horses for over-reaching. I have tried all possible ways to prevent it, by shoeing short, setting the side under the hoof, using a thick-sided shoe, heavy and light shoes, etc., and found in long and straight sided shoes the only remedy for cutting the quarter—for the simple reason that as the horse raises his fore foot, the long shoe is higher from the ground behind, and the hind foot passes under and just misses it.—E. C., in Ohio Cultivator.

Sugar Cane.

A correspondent of the Ohio Cultivator writes from Union county in that State, "The Sugar Cane crop is not what it would have been if the people had been posted by reading the Cultivator. The farmers planted from one-fourth to an acre, plowed too shallow, covered the seed entirely too deep, without soaking, consequently one-half failed to come. Then instead of transplanting from hills that had too much in, have stowed the missing hills with corn, to choke the balance. There are a few exceptions that look very well."

Large Premiums.

The Indiana State Society offers, at the fair of the present year, \$250 as the first premiums on horses and cattle. These are very large premiums, but Governor Willard, of that State, recommended that sum as likely to draw out large competition from the best cattle and horse breeders.

We note that the editor of the Indiana Farmer is urging very strongly the establishment of an Agricultural College in that State, by means of a stock company with shares fixed at fifty dollars each.

Sheep Bells a Preventive against Dogs.

In these days when the dogs outnumber the sheep, and their value appears to be in an inverse ratio to their numbers, that is, the more numerous the dogs the less valuable and more dangerous they are, while the scarcity of sheep has operated vastly to increase the profit to the farmer on the few that remain, for lamb and mutton have now become luxuries, it is a question with farmers whether they can keep sheep at all. The dog power is continually on the increase, and the danger from losses deters many from making investments in new and valuable breeds of mutton sheep whose flesh is a real luxury, while it is at the same time the healthiest and most convenient meat that the farmer can raise for the supply of his table. If we cannot control the dogs, we can adopt some partial remedies against them. Small bells can be obtained at the hardware stores for about one dollar a dozen, and several of these should be attached to every flock. We have not lost a sheep for several years, and impute our safety to this precaution. They also serve to keep the flock together, and, if the most quiet are selected to wear the bells, they become less inclined to ramble, for a part will not go off and leave the bells.—Homestead.

1859. ELEVENTH FAIR. 1859.

ANNUAL EXHIBITION
OF THE
Michigan State Agricultural Society.

Open to Competition from all States.

The list of premiums offered by the Society is the largest and most extensive that has ever been offered in Michigan.

Premium lists may be had on application to the Secretary.

Exhibitors will be required to purchase an exhibitor's ticket before making entries of stock of any kind. An exhibitor's ticket is not transferable, and will permit entrance and exit to the party only who has made the entry, and to no other person.

Exhibitors of stock, who enter more than one animal will be required to pay fifty cents additional, as an entrance fee for such other stock.

Entries may be made at any time previous to the Fair at the office of the MICHIGAN FARMER, 180 Jefferson Avenue, Detroit.

The Buildings and Fixtures.

1. The Floral Hall will remain of the same size it was last year, being one hundred feet long and fifty feet wide, and its decoration will be placed in the hands of E. St. Alary, Esq., whose tasteful designs gave such universal satisfaction at the Fair of 1858. It will be mainly devoted to the display of Fruits, Flowers, Musical Instruments, and Articles of Ornament.

2. The Hall of Art is to be a new building, octagon in shape, with windows in the roof. Here will be displayed the collections of paintings, engravings, statuary and other works of art. This building will be shingled and weather tight.

3. The Hall of Mechanics will be extended in length and width, so as to afford ample protection to all carriages and mechanical designs, and will be supplied with steam power.

4. The Hall of Agriculture will remain of the size it was in 1858, being one hundred feet long and thirty feet wide, and will as then be devoted to the display of seeds, vegetables, household productions, bread, butter, honey, sugar, &c.

5. The Hall of Manufactures will be extended and made fifty feet wide, with a good shingle roof that will protect all goods from the changes of the weather.

6. The Poultry House will be large and extensive enough to accommodate all exhibitors.

7. The pens for the sheep and swine will extend along the west fence of the grounds.

8. The Stables for the horses will extend along the west side of the track on the inside for about eight hundred feet, in a double row, each stall to be five feet wide and ten feet deep, and provided with a feeding box and manger.

9. The Cattle Sheds will extend along the north end of the ground, and to be 1800 feet in length in two or three separate ranges.

10. The Amphitheatre will be remodeled and improved, and rendered as attractive by the display of cattle and horses as it was last year.

11. Cattle rings will be erected for the display and examination of cattle during the fair.

12. A grand stand, capable of containing two thousand persons will be erected in front of the judge's stand, on the north side of the track, that ladies may have full opportunity to witness the display of horses.

GENERAL PROGRAMME.

Tuesday--First Day--Entries.

The Fair Grounds will be thrown open for members and visitors at 8 o'clock, A. M. Entries will be made at the Secretary's Office on the grounds during the day.

All persons who have been appointed members of the Viewing Committees are requested to report themselves at the Secretary's Office on the grounds, where they will receive their tickets, and their names will be registered.

The Gates will close at 7 o'clock P. M. of each day.

Wednesday--The Examination of Cattle.

The books of the several classes will be delivered to the chairmen of the several Committees, who will report themselves at the President's Stand between the hours of eight and nine, when the books are delivered, the committees will immediately commence their duties; except in cases where there are special directions.

The examination of Cattle will commence at eight o'clock in the Amphitheatre, and the judges on Short-horns will be expected to be ready at that time. Exhibitors of Blood Cattle are requested to have them in readiness as called for by the Marshalls. The examination of cattle will proceed throughout the day, both in the Amphitheatre and the cattle rings. Special daily programmes will designate the order of arrangement, and what classes shall be examined in the cattle rings and what in the amphitheatre.

No trotting or driving on the track will be permitted on this day before three o'clock, P. M. At three o'clock, P. M., the Committee on Trotting stock will call up in their order the three year olds and all stock under that age, and should these classes be passed upon, then the Black Hawk and Morgan classes of three years old and all under that age.

Thursday--Horses.

The Viewing Committees will proceed with their duties, commencing at eight o'clock.

The Committee on Horses for All Work will occupy the Amphitheatre at eight o'clock.

The Committee on Trotting Stock, will occupy the track and position at the grand stand, and when it has passed upon this class, the Committee on Black Horses and Morgans will occupy the same position. All cattle that have not been examined on Wednesday, will be examined in the cattle rings on this day.

Examinations will proceed till two o'clock, P. M. At three o'clock, the Annual Address will be delivered before the Society by His Excellency Governor N. P. BANKS, of Massachusetts. On the close of the address, the examination by the Viewing Committees will be resumed. The Committees will hand in their reports as soon as possible after closing their examinations.

Friday--Last Day--Awards.

All stock that have not been examined on the previous days of the Fair will be viewed and passed upon during the morning of this day.

The awards of premiums will be announced. The election of officers for the ensuing year will take place.

The stock will be removed. And all stock that may be brought for sale will be offered at auction, an auctioneer being on the ground for the purpose.

Membership tickets \$1.00. Each membership ticket will be delivered accompanied by four single entry tickets. A membership ticket is not an admission ticket.

Tickets of admission will be sold at the Treasurer's Office beside the gates, at 25 cents each. Carriages admitted as follows: Each single horse carriage 25 cents; each double carriage and driver 50 cents; each person in any carriage must have single tickets.

R. F. JOHNSTONE, SECRETARY.
Office of the Michigan State Agricultural Society,
Detroit, August 1, 1859.

NEW ADVERTISEMENTS.

NALL, DUNCAN & Co., Detroit, Dry Goods.
JOHN CHILCOTT, JR., Brooklyn, Rats.

ANSWERS TO CORRESPONDENTS.

E. G., of Giddicks--We do not know of any Agricultural paper published in Texas.

STATE FAIRS FOR 1859.

Illinois, Freeport, Sept. 5-9.
Vermont, Burlington, Sept. 18-19.
Kentucky, Lexington, Sept. 18-17.
Ohio, Zanesville, Sept. 20-23.
Indiana, New Albany, Sept. 26-30.
Iowa, Oskaloosa, Sept. 27-30.
Canada West, Kingston, Sept. 27-30.
Connecticut, New Haven, Oct. 11-14.
Michigan, Detroit, Oct. 4-7.
Maine, Augusta, Sept. 18-19.
New York, Albany, Oct. 4-7.
New Jersey, Elizabeth, Sept. 20-23.
Wisconsin, Milwaukee, Sept. 26-30.
National Fair, Chicago, Ill. Sept. 12-17.
Missouri, St. Louis, Sept. 24, Oct. 1.
New Hampshire, Dover, Oct. 5-7.
Tennessee, Nashville, Oct. 5-7.
Georgia, Atlanta, Oct. 24-28.
Maryland, Frederick City, Oct. 25-28.
Alabama, Montgomery, Nov. 15-18.

COUNTY FAIRS FOR 1859.

Macomb, Utica, Oct. 10-12, John Wright, Sec'y.
Lenawee, Adrian, Oct. 5, A. Howell, Sec'y.
Northern Lenawee, Tecumseh, Sept. 21, 22.
Barry, Hastings, Sept. 29, 30, D. Striker, Sec'y.
Oakland, Pontiac, Oct. 12, 13, M. W. Kelsey, Sec'y.
St. Joseph, Centerville, Sept. 28-30, D. Oakes, Sec'y.
Genesee, Flint, Sept. 28, 29, T. H. Rankin, Sec'y.
Allegan, Allegan, Sept. 28, 29, H. S. Higginbotham, Sec'y.
Jackson, Jackson, Sept. 28-30, D. Upton, Sec'y.
Kent, Grand Rapids, Sept. 28-30.
Berrien, Niles, Sept. 27-29, R. W. Landon, Sec'y.
Hillsdale, Hillsdale, Oct. 12, 13, F. M. Holloway, Sec'y.
Lapeer, Lapeer, Oct. 12-18, L. Loomis, Sec'y.
Lenawee, Adrian, Sept. 27, 28.
Cass, Cassopolis, Sept. 21, 22.
Ionia, Ionia, Sept. 29, 30, H. F. Baker, Sec'y.
Van Buren, Paw Paw, Sept. 29, Oct. 1, O. H. P. Sheldon.
Sanilac, Lexington, Sept. 27, 28, C. Waterbury, Sec'y.
Washtenaw and Wayne Union, Ypsilanti, Sept. 28-30.
Shiawassee, Corunna, Sept. 29, 30, P. S. Lyman, Sec'y.
Horse Show, Kalamazoo, Oct. 11-14, G. F. Kidder, Sec'y.
Eaton, Charlotte, Sept. 26-28.
Calhoun, Marshall, Sept. 29, Oct. 1, S. Lewis, Sec'y.
Ingham, Mason, Oct. 6, 7, G. M. Huntington, Sec'y.
Washtenaw, Ann Arbor, Oct. 11-13.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, AUGUST 27, 1859.

Preparations for the State Fair.

There never has been a season in which the preparations for the Great Annual Exhibition have been so far ahead, or were in such a state of forwardness as at present. Already the long ranges of horse stables and cattle sheds are in such a state that their dimensions and outline are perceptible. Some have already been furnished, and for neatness and accommodation, cannot be surpassed. The ranges of pens for sheep and swine are nearly completed and are ready to have their roofing put on. To show what the preparations are, that are now going forward, we will give the amount of material required, and which includes altogether about 50,000 feet belonging to the Society that was left from the shedding of last year, and which was piled up and stored away during the winter:

1. For the horse stalls, two rows 800 feet long, each stall 5 feet wide with partitions 8 feet high	64,800 feet.
2. Cattle sheds 1,800 feet long, with posts firmly set in the ground	89,000 "
3. 700 feet of pens for sheep and swine, each pen 10 by 5, 8 feet roofs	18,000 "
4. An octagon building for the Hall of Fine Arts	8,000 "
5. Addition to Mechanics Hall	8,000 "
6. Extension of Manufacturers Hall	8,400 "
7. Treasurer's Office	1,500 "
8. A Cattle Ring 200 feet in diameter	1,900 "
Total amount of lumber required	138,200
Of this the Society have now on hand	50,000

The work of constructing these buildings has been taken by N. W. Brooks, Esq., and Samuel L. Cockle. Mr. Brooks is one of the well known firm of Brooks, Adams & Co., lumber merchants, whose energy and ability enabled the Society to make the splendid and successful show of 1858, and which did so much, against the expectation of every one to resuscitate the Society in the confidence of the people of the State. Mr. Cockle is a mechanic of reputation and integrity, in Detroit, whose ability to work out a good job for the State Society is unquestioned, and whose energy is already showing itself in the progress already made with the work with which he has been entrusted.

These preparations, in connection with the spaciousness of the grounds, their excellent fitness for such exhibitions, and the feeling that exists generally both in and out of the State, proves that, with good weather, Michigan will have an exhibition this year such as has never yet been held here.

The applications for the premium list and programmes have been more numerous than ever before, and all have been promptly answered. The Secretary has appointed Dr. H. J. ALVORD his assistant, and the office of the Society is open at a usual hours for business. It is located at the MICHIGAN FARMER office,

and close to the Peninsular Bank, on Jefferson avenue, Detroit.

We are advised that some of the most celebrated makers of carriages in New York city, will be on the ground with some of their choicest and handsomest manufactures; and the cattle men of Ohio and New York, and the horse men of the west are looking to the Michigan Fair of this year as the great State fair at which their animals shall compete. As an exhibition of cattle and horses, as well as of industrial products, everything promises that the Michigan State Fair will be the great Exhibition of the season, for this section of the United States, occurring as it does at a time when the United States fair and Illinois fair, as well as those of Ohio and Indiana have passed. All needed now, is that the citizens of Detroit will manifest something of that liberality which the Society and exhibition are entitled to, as drawing to the city a trade and business, whose value will be enormous.

The Cattle Markets.

The N. Y. Tribune makes the following sensible remarks on the effects of the credit system in the sale of cattle. As the season approaches when the great droves will be pressing forward, every thing that touches upon this subject is of interest to the farmer, and he should be well advised of the practices prevalent in the various selling markets so that he may be able to contend with the difficulties that meet them:

"Drovers are very apt in a falling market to complain that the brokers' commissions are unreasonably high. So they would be, upon cash sales. But nearly all business is done upon credit, and the brokers guarantee sales, and in fact generally pay off owners, as though the sales were made for cash, and the drover actually realizes more money after paying the brokers than he would if the cattle sold for cash. The broker has to stand in the gap, and bear all losses and 'swindles,' such as have taken place since our last report, in the failure of a few firms of wholesale butchers. These gentlemen, after buying of all the brokers who would trust them, promising cash and giving instead time checks, suddenly shut down upon the victims of the 'confidence game,' some of whom had taken eight checks, or checks for only one day. The losses of the brokers, it is said, amount to about \$14,000. Such things as this are the cause of high commissions, and also the cause of some pretty bad feelings on the part of the brokers, who may in consequence refuse credit to some men who would pay, and thus injure the drovers by its general effect upon the market. We have no doubt that the whole credit system which prevails so extensively in the cattle market is a curse upon drovers, brokers, butchers, and in the long run injures both producer and consumer, as well as all the middle men in the trade.

It will be seen by the above that the brokers' commissions have to come out of some one; the question is do they come out of the consumer or the producer? The drover is supposed to buy directly from the producer, and the consumer really pays the money which the producer gets; all other parties are agents in effecting the change that takes place between the two. The main interest should be to reduce the number of intermediate agents, for the more there are of them, either the greater amount the consumer has to pay, or the less the amount the producer receives for the stock he has fed. According to the New York practice, the drover buys the stock from first hands, he conducts it to New York, and there sells it not to the butcher, who manufactures the raw material into meat, but instead, a broker who has money, is employed by the butcher to make the purchase. This broker lives and gets his wages and a certain profit for the use of his money out of the price of the cattle. Does not this reduce the price? If meat sells at 10 cents per pound in New York, and out of this one cent or a cent and a half goes to the broker, the question is, does not this reduce to a certain degree the amount received by the drover, and does it not react on the prices paid the feeder? We think it does. Still it may be argued that in fact this profit comes mostly out of the consumer, and that the prices he pays are governed solely by the first cost, and the additional expenses of getting the meat in the stables of the butcher. But in truth the price paid by the drover is in great part governed by what he knows of the common price, and the very fact that a commission has to be allowed out of the rates received has to be taken into the account of expenses to be added to the cost of the cattle. Take out the brokers' commission, and unquestionably a part would be added by the drover to the amount paid for the animals, and a part would go to the consumer. It is easily to be seen that the credit system has to be paid for, if sustained, in the cattle business as well as in all others.

—G. P. R. James, does not seem to like his location in the lap of the Queen of the Adriatic, so he leaves Venice and is about again to take up his residence in Virginia.

Ohio Grain Crop.

We find in the Cincinnati Gazette a tabular statement of the grain crop of Ohio for the year 1858. From this statement it appears that the produce of wheat in this great grain growing State in 1858, was but 10½ bushels per acre, and that in that year wheat was grown on 1,695,412 acres. In 1857, the number of acres on which wheat was grown was 1,823,147 acres, and the rate of produce was nearly 14 bushels per acre, the whole yield in that year being 25½ million of bushels, whilst in 1858 it was but 17½ millions. The crop of corn in 1857 averaged 36½ bushels per acre, whilst in 1858 it only averaged 28 bushels per acre. Making a difference in the whole crop between the two years of 32 million of bushels.

In relation to the crop of the present year the Gazette says:

"It will be seen that the whole number of acres under wheat, in 1858, was 1,695,412, producing 17,655,483 bushels, or an average of 10 2-5 bushels to the acre. The general impression is, that one-third more land was planted the past season than in the previous year. It is safe, we think, to estimate the number of acres at 2,000,000. The product per acre, after making allowance for the frost-district, may be stated at fifteen bushels. The yield is admitted to be better than in 1857, when it was within a fraction of fourteen bushels. The crop, this year, is also very superior in quality. We may, therefore, set the crop of 1859 down at 30,000,000 bushels of wheat of excellent quality, against 17,000,000 bushels of ordinary quality last year, and 25,000,000 in 1857.

"Corn was also very light last year, the total yield on 1,834,138 acres planted being only 50,863,582 bushels, against 82,550,186 bushels on 2,254,424 acres in 1857. The average last year was 27½ to the acre, against 36½ in 1857. This season the number of acres planted is fully up to that of 1857, and it is probably greater. We can hardly fail, therefore, with anything like good weather from this time out, to realize a much larger crop than was secured last year."

We find the following testimony in the New York Tribune to the energy and promptness that characterizes the management of the Michigan Central Railroad:

"Our attention is called to the fact that since our severe strictures upon the abominable caboosees upon several roads, great improvements have been made and are making. The Erie Road, we are told, is getting an entirely new set of comfortable, convenient caboose cars to travel with all stock trains for drovers. But the Michigan Central is taking the lead of all. The first of a new lot has been put on, and is furnished not only with seats, but with conveniences for sleeping. Men can travel in them as comfortably as upon the passenger trains. We guarantee that drovers will never destroy such a car as they have destroyed some of the pig pen caboosees."

We hope to find some of these cars presented for examination at the State Fair; it will be noted by the premium list that competition in this department is encouraged, and that improvement in this line has been considered worthy of the encouragement of the State Society.

We copy from the Country Gentleman a description of a steam machine for dragging plows, harrows or cultivators, for it is evident from the description it can be applied to all such work, that has lately been invented by a Mr. Fawkes, of Lancaster county, Pennsylvania. We shall await further trials of this wonderful plowing machine with interest.

Literary News.

The Ladies' American Magazine for September has a very good table of contents, a fair fashion plate of two figures, colored, and several designs of patterns for garments, caps, sleeves, &c., which will be found useful. We take from its pages a pretty little poem entitled "A Home Picture."

Godey's Lady's Book is, as usual, early on hand and well filled with a variety of interesting articles. Setting aside the stories, the pages devoted to instruction in various matters connected with household affairs, the toilet, the sick room, &c., make each number worth the price of a year's subscription.

The Atlantic Monthly for September is received. It gives a heavy table of contents for this month. They are: The Life and Times of Ary Scheffer, A Visit to Martha's Vineyard, October to May, Elenasia, The Minister's Wooing, Once and Now, A Trip to Cuba, Zelma's Vow, The Murder of the Innocents, My Double and I, The Singer, and The Professor.

Scientific Intelligence.

Agricultural Patents issued for the Week ending July 26, 1859.—Henry Fisher, Ohio. Improvement in Harvesters.

Agricultural Patents issued for the Week ending August 2, 1859.—M. Bucklin, Grafton, N. H. Improved Draining Machine.

T. B. Garside, Danville, Iowa. Improved portable field fence.

O. H. King, Salem, Iowa. Improvement in Harvesters.

S. A. Lindsay, Unionville, Md. Improvement in Harvesters.

F. Meyer, Naperville, Ill. Improvement in machines for cutting and binding grain.

D. C. Smith, Tecumseh, Michigan. Improvement in corn huskers.

J. S. Snider, Lancaster, O. Improvement in seedling plows.

A. Watson, Walnut Run, O. Improvement in mole plows.

J. G. Ernst, York, Penn. Improved machines for bending plow-handles.

General News.

—The people of New York have been greatly concerned for a week past at an unusual flavor to the Croton water. A committee including some eminent chemists are investigating the cause.

—A terrible gale said to be the most fearful ever known there, has just occurred at Prince Edward's Isle occasioning an immense loss both of life and property.

—Mons. Blondin on Wednesday the 17th, successfully performed his promised feat of carrying a man across Niagara River on his shoulders. Mr. Colcord, Blondin's agent, was the adventurous individual who submitted to the experiment.

—Mons. De Lave, the rival of Blondin, successfully crossed the Genesee Falls on a tight-rope on Tuesday afternoon. A concourse of from eighteen to twenty thousand people witnessed the performance, and were thoroughly drenched by a severe thunder-shower which occurred just previous to the commencement of the feat.

—The New York and Erie Railroad has gone into the hands of a receiver. The road is said to be in first rate order and it is thought may hereafter prove in other hands paying property.

—The reports from Pike's Peak are very conflicting. Some accounts still make the whole thing a gigantic seal while others and often times from reliable men state that gold is found in paying quantities.

—The American Normal School Convention at Trenton has just closed a very interesting session. Delegates were present from all parts of the Union.

—The Ontario steam elevator, at Palladium, in the State of New York, was destroyed by fire yesterday morning, involving the loss of about 150,000 bushels of wheat and corn. The total loss is estimated at \$150,000, covered by insurance.

—The New York correspondent of the Memphis Enquirer says that the Hon. Fernando Wood and five other prominent Democrats telegraphed to Gov. Wise to promptly deny the authorship of the B. Donnelly letter, whether he wrote it or did not write it.

—The recent elections in Oregon have been without out doubt carried by the opposition party.

—Cases are daily occurring of injuries resulting from the careless use of burning fluid. Sarah M. Morris, 15 years of age, residing in Brooklyn, died yesterday from burns received the evening previous, while attempting to fill a lighted fluid lamp.

—The first lot of wheat ever exported from Texas was shipped to New York from Galveston a few weeks since which is regarded as a harbinger of success in a new branch of agricultural industry in that State. There will also be a large surplus of corn for exportation.

—The news from Mexico is considered very important. Miramon had dissolved his cabinet. Gen. Woll had been defeated by the Liberals with the loss of his artillery. The Juarez decree, confiscating the Church property, was being carried out, and the Archbishop of Mexico, in consequence, had issued a bull of excommunication against the whole Liberal party. The command of the Liberal army had been assumed by Degollado. The news is considered in Washington as highly encouraging to the Juarez Government, and but little doubt is entertained of the speedy and permanent success of the Liberals. The Archbishop's excommunication is considered as a very harmless proceeding.

Foreign News.

The completion of the steamship Great Eastern was formally celebrated on the 8th, by a banquet on board, which was attended by many members of both houses of Parliament, and a number of distinguished engineers and scientific men. The engines, both screw and paddle, were set in motion for the first time, and the result was satisfactory in the very highest degree, and far beyond expectations. The ship presented a beautiful and finished aspect, being almost ready for sea.

The "nine hour" strike in the building trade in London was becoming very serious. Monster meetings had been held in Hyde Park by the workmen, but the employers still refused to accede to their demands.

Parliament was expected to adjourn on the 18th inst. A bill has passed through the House of Commons establishing a reserve force, of volunteers for five years, of 80,000 men for the navy.

In France orders had been given for the disbanding of marines, and the disarmament of all vessels.

The Paris Constitutional figures up the cost of the war at 1,300,000,000 francs, or \$250,000,000.—The \$100,000,000 borrowed over this amount will be expended in public improvements.

It is said that Prince Richard de Metternich will be the new representative of Austria at the Court of the Tuilleries. Prince Richard is a son of the deceased veteran Metternich, by his second wife, and is about 35 years old.

The aspect of the relations between Austria and Prussia was threatening, and an open rupture was anticipated in some quarters.

At the latest accounts the Conference at Zurich, between the representatives of France, Austria, and Sardinia was fully constituted, and two days' session had been held; but of the proceedings nothing had transpired.

The settlement of the Italian question is still far from completion. Reports of discontent in Italy, with the peace and with the proposed settlement, are very current. It is even said that Sardinia will utterly refuse to enter a Confederation of which Austria is a member. In other States the feeling is manifest from the fact that out of 172 communes in Tuscany, 160 have voted for the annexation of that country to Piedmont; while in the Romagna, out of 26,000 votes, 19,000 are against the Government of the Pope.

Napoleon is decidedly less popular in Italy since the Peace. At Nice it is reported the people dragged his bust through the kennels of the town.

It is stated that 50,000 French troops are to remain in Italy, owing to the dangerous state of some of the provinces.

A tribunal at Perugia has condemned seven of her principal men, who are luckily out of harm's way, to death. The volunteers in the war from Rome are, however, allowed to return, and there is vague, we fear unmeaning, talk of reform.

It is rumored that an attempt has been made to poison Garibaldi.

A letter from Nangasaki, Japan, of the 21st April, says: "The new Emperor becomes every day more and more liberal to the Europeans, and the Mandarins of the provinces, instead of subjecting them, as heretofore, to all sorts of ill-treatment display great regard for them."

The Household.

"She looketh well to the ways of her household, and a piece not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

HOING CORN.

BY MRS. L. B. ADAMS.

Out in the earliest light of the morn
Ralph was hoing the springing corn;
The dew fell flashing from blades of green,
Wherever his glancing hoe was seen,
While dark and mellow the hard earth grew
Beneath his strokes so strong and true.
And steadily still, hill after hill,
As the sun went up, he swung the hoe,
Hoe, hoe, hoe—row after row,
From the earliest light of the summer morn,
Till the noon-day sound of the dinner horn.

What was Ralph thinking of all the morn
Out in the summer heat hoing corn,
With the sweat and dust on his hands and face,
And toiling along at that steady pace?
A clear light beamed in his eyes the while,
And round his lips was a happy smile,
As steadily still, hill after hill,
While the sun went down, he swung the hoe,
Hoe, hoe, hoe—row after row,
Faster toward nightfall than even at morn,
He hastened his steps through the springing corn.

Across the road from this field of corn,
Was the stately home where Ralph was born;
Where his father counted his stores of gold,
And his lady mother, so proud and cold,
Lived but for the satins and gauzes and lace
That shrouded her faded form and face;
While steadily still, hill after hill,
Unthought of went Ralph, and swung his hoe,
Hoe, hoe, hoe—row after row,
Day after day through the springing corn,
Toward the humble home of Isabel Lorn.

This he was thinking of all the morn,
And all day long as he hoed the corn,—
"How sweet 'twill be when the shadows fall,
Over the little brown cottage wall,
To sit by the door, beneath the clustering vine,
With Isabel's dear little hand in mine!
So cheerily still, hill after hill,
From morning till night I'll swing my hoe,
Hoe, hoe, hoe—row after row,
Knowing each step that I take through the corn,
Is bringing me nearer to Isabel Lorn!"

So glad was he then, that the growing corn
Shielded his steps from his mother's scorn;
Had glad that his father's miser hand
And barred all help from his fertile land,
So safely he kept his forest floor,
And dreamed of her beauty hour by hour,
As steadily still, hill after hill,
Through the field so broad he swung his hoe,
Hoe, hoe, hoe—row after row,
Knowing each step through the growing corn,
Was bringing him nearer to Isabel Lorn.

But months passed on, and the ripened corn
Was laid on the ground one autumn morn,
While under the seed in the churchyard blest
Are two low graves where the aged rest,
The father has left broad lands and gold,
And the mother her wealth of silks untold,
And sweet Isabel—why need I tell
What she said to Ralph, when without his hoe
He sought her side? It was not "No,"
That made her the mistress, one summer morn,
Of that stately home by the field of corn.

Our Window.

What eyes are to the body, windows are to the house. They let light in, and are loopholes of observation where the indwellers may look out upon the world. What a pity that all windows cannot have a pleasant prospect—that the soul must sometimes look upon scenes that make it shrink within and drop the curtains between it and the world! But we are not going to moralize now, nor draw disagreeable comparisons. The scene upon which we look to-day from our little private chamber window is too quiet and pleasant, and too suggestive of sweet associations to permit anything of the kind. In the first place it has to us the novelty of newness, it being but little more than a week since our eyes first looked down upon this tiny nook of sweetness, greenness and bloom. In the second place, though full of busy life, it has the charm of silence and quiet. Only those whose ears have been stunned day after day by the clatter of wheels over a rough pavement, can fully appreciate this last qualification. But let them sit as we do all day, with the confused and confusing roar coming up through windows which must be opened to let in breathing material, and which let in the noise as well, and then retire at night with every sense exhausted and every nerve trembling with the effort to keep both bodily and mental endurance up to the working point; let them sink into slumbers sound and deep enough to have satisfied the immortal Seven, and then open their eyes with the dawn, to look out on the fresh green foliage of trees, deep, dewy grass, fragrant blossoms where flocks of humming birds are taking their dainty breakfast, and rows upon rows of bee hives from which comes up the low murmur of preparation for the sweet labors of the day! O how dreamily all yesterday's toils and cares seem blended with the dreamless sleep from which we have just awakened! We cannot think there was any reality in them. There is nothing real now but the sweet consciousness of rest, and the bright picture framed by that little open window, from which we scarcely dare turn our eyes for fear it will vanish away as many another lovely vision has done. There is nothing artistically beautiful about the spot. No gardener has ever been there with skillful hand and knife to train the vines and

trim the trees. The few flowers there grow as they list; the sweet peas trailing their pink and snowy blossoms amid the luxuriant grass, or twining around any strong weed within their reach; the prim balsams blushing beside the coarse hollyhocks which shoot up here and there, just as it happens, flaunting their broad blossoms to the sun with equal self-complacency above the board fence or under the wood-house eaves; the starry asters lie clustering in the grass, pink and purple and white they smile up from the sides of the little foot-paths winding here and there; wild cucumber vines are clambering all about over the other plants and flowers, over the little shrubs of trees, over the fences, and even up to the top of the kitchen roof, where they have caught hold of the shingles with their delicate tendrils, and are at this moment, from that ambitious height, holding up two long spikes of dainty blossoms as signals of their triumph. There are a few plum and pear trees that grow and branch and bear or refrain from bearing, just as they like, a grape vine that wanders where it pleases, on the ground or up among the branches of the old pear tree at the end of the barn; but most beautiful of all, and most lawless in its wild luxuriance, is the splendid trumpet creeper that has climbed to the top of the old barn, and there spread itself over the roof in a perfect abandon of foliage and bloom. What a mass of green, and what clustering sprays of orange-red blossoms starting it all over! some half buried in the foliage and some streaming out on the long lithe branches like fiery pennons ready to tremble in the slightest breeze that wakens. It is on this mass of verdure and bloom that the first slant rays of morning sunlight fall, setting the blossoms, wet as they are with the night dews, all ablaze with glory, and lighting thither whole bevy of humming-birds that flash in and out of the glowing nectar cups. It is a sight worth waking with the dawn to see.

Then all about in the grass under the trees are rows of quaintly capped and painted bee hives, somewhere near a hundred in number, sitting like so many Quakers in solemn conclave under their broad brims, waiting for the spirit to move, which it always does in good time, and brings with it the sweet fruits of patient industry.

Now this little nook of greenness and quiet is in the very heart of this great noisy city, within a stone's throw of its busiest thoroughfare; it is all surrounded by rough, board fences, and old frame houses with broken gables and mossy roofs, and would doubtless be quite astonished to hear itself praised after this fashion, such a wild, uncultured, unpresenting little back yard as it is; but very beautiful it has seemed to us, as morning after morning for these few days gone, while recovering from the overweariness of our summer toil, we have opened our eyes upon its dewy verdure, and from its very wildness seemed to drink in that health and strength that we sometimes fancy only country air and country scenes can give.

Reader, if you were to look out at that window this moment, you would most certainly exclaim,

"What is all this romancing about? I see nothing but some wild, scraggy-looking trees, a few coarse flowers and untrained vines; and over beyond there is a dirty alley, and here to the right is a barnyard and some shockingly dilapidated old buildings, and—"

Never mind what is over beyond, or to the right or to the left. From our pillow looking out, or from the table where we write, we see neither alleys nor barnyards, nor ruined walls. Our window frames to our eyes only sweet and pleasant things. We must inevitably in life see much that is disagreeable, but if it may be, let such things be shut from sight by the frame, while we gain new life and strength and courage by looking straight through the window at the beautiful creations of God's own hand.

RECOLLECTIONS OF IRELAND.

PREPARED FOR THE YOUTHFUL READERS OF THE MICHIGAN FARMER: BY BLOW JAMIE.

NUMBER TWELVE.

March. People who pretend to be learned tell us that this month derives its name from *Mars*, the Latin name of the god of war—but so much dictionary never suited me. I always knew that *March* was so named because in this month the year marched along so rapidly towards summer. This was more noticeable in Ireland where the days are so short in winter and long in summer. The rapidly lengthening day now reminds us that our days and years are hastily slipping away.

As some poet has said,

"Earth rolls her rapid seasons round
To meet her final fire."

We are naturally discontented. In summer we long for the quiet and leisure of winter. In winter we sigh for the life and beauty of sum-

mer. The varied seasons of the year labor to satisfy us by giving so many and such marked changes. This is more marked in March than in any other month. Alternate blinks of pleasant sunshine and storms of wind and rain keep us in suspense whether winter or summer is going to reign. As in almost every other case, the gentle quiet and persevering, prevails over the fierce and blustering. March which "comes in like a lion goes out like a lamb."

March which is here remarkable for high winds is even more stormy there. The laborer often has to leave the field for no other reason than high winds. The farmer, however, is glad of it to dry up the superabundant moisture and prepare the field for receiving the seed. It is a common saying that March-dust is better than gold dust. As soon as the furrow assumes a thin dry crust the husbandman drags it and sows it with oats. This is often done early in March; sometimes not till April. As soon as the sun breaks out the music commences. The farmer sings as he commits the golden grain to the earth, the plow boy whistles as he drives the horses at the harrow, and the sparrow twitters in the thorn hedge.

"When green grass first begins to spring
And daffodils appear,
Then robins in the morning sing
For pleasant spring is near."

If the farmer can get his ground very dry and in good condition he also sows his barley this month. Otherwise he waits till April or even as late as May. The barley raised there is the two rowed variety, with as heavy a grain as our spelt. It is manufactured into liquor or pounded in stone troughs for pearl-barley. In the latter condition when used as rice it is both palatable and healthy. In the former, it is nauseous and poisonous; yet there is far more of it drank than eaten. And though hundreds have died in consequence, yet hundreds more continue to use it.

About this time the wild swans return from southern Europe where they had spent the winter. The wild geese follow after. These, however, stay but a few weeks with us to recruit their strength and then taking wing again fly away toward the North, where they pass the summer and raise their young. Whether they remain at Iceland and Norway, or pass on to the Arctic region, I cannot tell. I know that wherever they go they find abundance of food, for they return in the fall in good condition. The swan remains with us all summer and builds her nest among the rushes in the marshes. Her eggs are larger than those of a tame goose, and are counted a great prize when a boy finds the nest, but he must be careful not to approach the nest when she is on it, for she would fly at him, and a stroke of her wing would break his arm.

As the swan returns, the plover, the curlew and the water-hen, take wing and go off to Lapland and other countries where they pass the summer, from which they return in the fall to pass the winter in Ireland. The curlew and plover may be heard every pleasant evening whistling for perhaps a month before they leave. When near, their voice is loud and harsh, but at a distance a flock of them sound like a life when it is too far away to know the tune. And as they are a shy, retired bird, their notes are really musical.

The wild duck remains in Ireland winter and summer, and finds abundance of nourishment in the lakes and marshes. They are counted game, and a poor man cannot touch them except by stealth. However, their eggs, which they begin to lay the latter part of this month, are not game and often make a very pleasant addition to the poor man's scanty fare. They are not so prolific as the tame duck, still if you rob their nest gradually each duck will lay two or three dozen of eggs in a season.

The Burdock and the Violet.

It came up in the garden, that burdock, just behind the violets and close to the rose bushes. It was in the corner close up to the fence, and we said we would let it stay, and it should have all the kind care and the gentle attention that the roses and the violets had. Roadside burdocks, we knew were coarse, vile things, with their dusty leaves, and their sharp burs ever adhering to the passers-by, and we would like to see what a garden burdock would be like; whether it would be bright, and fresh, and delicate for growing in such sweet company, so we were merciful and let it stay.

And it grew among the roses and the violets, and gentle hands watered it often, and the earth was softened about the roots, just as for its fairer neighbors; but it waited not for them in its progress upwards. It shot up, rank and tall, and its wide leaves spread all abroad, and threatened to cover up and obscure its less assuming neighbors. And at last the blossoms came. They were large and

strong, and armed with keen thorns, and the flowers changed into burs, and they reached out their thorny fingers and grasped the passer-by, and the white dust lay thick on the rough, woolly leaves, and the seeds flew out on the wind, to seek lodging places, where in another year, a new crop should find foothold and sustenance.

A little violet crept up through the fence and looked up brightly beside the hard and dusty street, and we said we will let it grow there, and so it grew. Water it had none, except the celestial fountains; care, it had none, except from sunshine and sweet dews and the kindly glances of the passers-by; yet there it lived and bloomed sweetly, "wasting its sweetness on the desert air." Its green leaves were as green as its cherished kindred of the flower-bed, and its blue eyes reflected as hopefully the blue of the summer sky.—*Er.*

Household Varieties.

A HOME PICTURE.

A low, brown cottage by the sea.
With vines o'errun, which tempt the bee;
The flowers in fragrant clusters swing,
And humming-birds upon the wing
Sip daintily the nectar there.
While swallows to the eaves repair.
The dreamy voices of the main,
And tender, breathe a low refrain;
Through scented pines the winds blow free,
Round the low cottage by the sea.

Within the cottage by the sea,
A babe sits on its mother's knee,
With hair like sunshine, and clear eyes,
The deepest blue of Summer skies.
The mother's face, so sweet and fair,
Is such, unseen, as Angels wear.
She frolics with her baby boy,
Does this, and that, to give him joy.
While his sweet laughter fills, with glee,
The low brown cottage by the sea.

From a boat, anchored at the shore,
Comes to the open cottage door
A fisherman, with footsteps bold,
The shepherd of this little fold.
His eyes with love are brimming o'er,
As he looks through the open door;
He pauses for a moment there,
Within the picture is so fair;
Another, and his arms have pressed
The child and mother to his breast.
Oh, never was king more blest than he
In the low cottage by the sea.
—*Ladies Am. Magazine.*

Talking to his Plate.—The *Rome Sentinel* relates that a three-year old girl accompanied her father upon a visit to her grandparents in the country, where a blessing is invoked by the white-haired patriarch before each meal. The custom was one with which our little friend had not been made familiar at home, and of course on the first occasion she was silent with interest and curious watchfulness. But when the family gathered around the board the second time after the commencement of her visit, she was prepared for the preliminary religious ceremony, and observing that her father did not seem duly conscious of the approaching solemnity, she called him to order by saying, with stern gravity, "Be still, papa—grandpapa's going to talk to his plate, pretty soon!"

Lying to Children.—The Rev. Robert Hall had so great an aversion to every species of falsehood and evasion that he sometimes expressed himself very strongly on the subject. The following is an instance stated in his life by Dr. Gregory: Once, while he was spending an evening at the house of a friend, a lady, who was there on a visit, retired, that her girl of four years old might go to bed. She returned in about half an hour, and said to a lady near her, "She is gone to sleep; I put on my night cap and laid down by her, and she soon dropt off." Mr. Hall, who overheard this, said, "Excuse me, madam, but do you wish your child to grow up a liar?" "Oh, dear, no. I should be shocked at such a thing." "Then bear with me while I say, you must never act a lie before her; children are very quick observers, and soon learn that that which assumes to be and is not, is a lie, whether acted or spoken." This was uttered with a kindness that precluded offence, yet with a seriousness that could not be forgotten.

A Word to Husbands.—Has anybody ever written upon the responsibility which rests upon a husband with regard to the education of his wife? Of course we know what you will say about her being supposed to have "finished her education" before marriage, and all that; and yet you and we know that she begins as new an education with him as if she had never seen the alphabet. His views, feelings, his ideas, are they nothing to her, if she loves him? Years after, when they who "knew her as a girl," come to talk with the matron, do they not find her husband reflected in every sentence, either for good or evil? Of course, the more strongly a woman loves, the more completely is her own identity absorbed in her husband's. This is a point which is too much neglected by married men. A good husband is almost certain to have a good wife; and if she be "not so good as he could wish" at the commencement of their married life, he can soon educate her up to the proper mark. And, on the other hand, he can so educate her down as to render his house a purgatory, and, perhaps, bring upon himself and his family the greatest agony and keenest pangs of disgrace which a husband or children can feel.—*Er.*

Language Without Oaths.—The Indians cannot swear in their vernacular. This is a singular and interesting fact. Why does their language furnish no oaths? Are the Indians so prone to truth, so averse to falsehood, that invention of oaths was impossible? Probably this was the case until they became so corrupt by our example. Their simple promises must have been to them as sacred and inviolable as the most solemn adjurations are to us. Never resorting to serious appeals to Heaven or the Great Spirit for the confirmation of their statements, profane oaths do not follow of course.

Women can easily preserve their youth; for she who captivates the heart and understands never grows old.

The Reserve Ground.

MRS. H. E. G. ARRY.

"Uncle," said little Milly, "where is my garden? All the rest of the children have a part of the garden to take care of, and I want something to do. Won't you give me a garden?"

"Well, Milly," said her uncle, laying his hand caressingly upon the head of the little orphan girl who had recently been added to his family, "I don't know what I can give you. The garden is pretty well divided up among the children. There is nothing left where there are flowers—I suppose you want flowers—unless it is the reserve ground.—Would you like to take care of that?"

"Oh yes, I don't care what it is, if it only has flowers. Will you please to tell me what I am to do?"

"Let me first tell you what a reserve ground is; perhaps you don't understand it. It is the place where we put in a great abundance of seed in order that we may have a plenty of plants to draw from, when any vacant place occurs in the borders. We start slips in one part of it, and whenever there are extra shoots of valuable plants, we put them there to remain until there is a call for them. So you see that though you will have charge of the reserve ground, still I shall always have a hand in it, bringing in new slips for you to look after, and taking out those plants that are sufficiently grown to be removed to the borders; you will get a good many flowers—indeed, your aunt calls it the wilderness, there are so many—but it will be more frequently disturbed than any other part of the garden. Do you think you will like it?"

"Oh yes, very much," said Milly, with delight; yet she understood but little of her uncle's somewhat mixed explanation of the nature of a reserve ground—only that she was to have plenty of flowers, and she was satisfied.

Still greater was her pleasure when she was introduced to the little plot of ground, with its pit in the corner, which was to be her especial care. It was a very flourishing part of the grounds, she thought—so full of everything; to be sure, they were heaped together without any special regard to order; the flowers were grown in masses most certainly; but with her their great value depended on their number.

And Milly, once instructed in her duties, took very good care of the reserve ground, keeping out the weeds that were determined to overrun the rich soil, and getting an abundance of flowers from her forests of stocks and balsams, and asters. True, her uncle would fill up the vacant spaces with a great many slips that she did not admire very much—he cut the leaves so close when he put them into the ground, that it destroyed all their beauty; and then they grew very slowly.

But he brought her many fine shrubs, and beautiful roses, which come forward rapidly, and amply repaid her for the want of enjoyment she found in the naked looking little slips.

One of these roses—a very beautiful perpetual—had gained her special affection. It was only a tiny shoot from the side of her aunt's highly prized Malmesbury when it was brought to her, but it had plenty of root, and, once established in her reserve ground, it grew luxuriantly, so that before the first season was over it came out with a fine show of buds, and then Milly rejoiced over it as her especial treasure. When the first rose opened she bore it in triumph to her aunt.

"Why, Milly," said her uncle, who sat by, reading his agricultural paper, "your Malmesbury is not in bloom, is it?"

"Yes, uncle," said Milly, proudly, "it is full of buds, and this is the first flower."

Her uncle folded his paper deliberately, and laid aside his spectacles, and started for the reserve ground, followed timidly by Milly, who wondered if he doubted her assertion.

But when she reached the spot, what did she find but her uncle with his horrid thumb and finger pinching off all the buds from her treasured rose-tree.

"It must not blossom yet, Milly, dear," said he kindly, when he noticed the choking look with which she witnessed his predatory work. "I have a special mission for this rose. We wish to have the strength all go to the forming of the tree, for the present. It won't grow as well if we let it blossom now. Indeed it might kill it, if it should bloom much this year. If it comes into bud again, you will pinch them off as I am doing. Will you remember, my child?"

Milly thought it was very hard, but the idea that it might kill her beautiful rose to bloom too soon, was sufficient, and when the next array of buds appeared, her unwilling hand performed the office which her uncle had assigned to her of pinching off the early promise of bloom. Her uncle never knew what it cost her to do this, for Milly loved the flowers. He only knew when she told him that she had followed his directions, and he rewarded her by saying that she was a

very thoughtful little girl, and was doing nicely by her charge.

When the next spring came, Milly watched anxiously every swelling leaf-bud in her rose-tree, rejoicing afresh over each new shoot that started, and thinking that now surely her rose was strong enough to be allowed to bloom.

It was the object of her first care in the morning when she went to look after her reserve ground; and in the evening when she came from school, her first thought was to see how her rose had progressed through the day. But there came a day when on hastening to her reserve ground after her school hours were over, she found that her beautiful rose was gone. There was the soil turned carefully away from where the roots had spread, and the marks of the spade that had been used in this deliberate depredation.

"Peter, where's my Marmalade?" she called, with brimming eyes and choking voice, to the man who was rolling a wheelbarrow heavily at a little distance.

"Moved it to the lawn," said the man, going on with his wheelbarrow.

Milly threw herself down on the turf, and let the tears run over her face without stint. There came to her mind a vague idea of the nature of a reserve ground, and the kind of ownership she held in its possessions. Her uncle had said something about a special mission for that rose, but she understood very little about any special mission for rose trees, other than to bear flowers in the spot where they grew.

While she still indulged her unmeasured grief, her uncle came back from his task of seeing the rose tree well planted in the lawn, to remove the traces of its uplifting from the reserve ground, and was upon her before she had time to start up and hide her tears.

"Why, Milly," said he, "what is the matter? Is it the rose tree, child?" he added, patting her kindly. "Why, my little girl, you did not wish it to grow in this unsightly place, did you? It would be a mere waste of its beauty. You shall still have the rose-tree for yours, if you like, in the place where it stands on the lawn. You surely could not wish us to waste it here."

But this reasoning was all lost on Milly. She could not understand how that could be wasted beauty which grew so gloriously in the garden that she called her own. It was no waste to her. She could enjoy it wholly where it had stood, and where it had seemed all her own. It was another thing out on the lawn, where every one could see her in what she feared they might think the silly occupation of counting every leaf and shoot that grew. The rose might still be called by her name, but it was no longer under her care, no longer her own in reality. Visitors swept by with their spreading skirts and praised it. It was no place for the timid child to nurse the thing she loved.

Many a time had the beautiful rose-tree shed its crown of flowers before the little girl had ever turned her steps to the spot where it stood. The time came when she learned to love it even among the fine shrubs on the lawn, but there had been a transition of spirit with her before this day. She knew that it was a garden of beauty in the spot where it stood, the glory of all eyes that beheld it, but for her it had been transplanted to another world—a world from which by habit and timidity she was debarred.

Years passed away, and Milly dwelt in a home of her own—a home that one of the strong hands of the earth had planted, and chosen her to be the light thereof. A throng of fairy little ones called forth her ceaseless love, and claimed from her a care that knew no rest. Milly was busier in keeping out the foreign elements from the weed-sown soil of the human heart, than she had ever been in the charge of her reserve ground. Very weary she grew at times, and ready to faint in view of the task before her, but the tireless love of the little flock, and the wonderful beauty into which they grew, were enough to cheer her when the way grew rough. There was one among them—a restless little fellow with a broad jutting forehead, and deep blue eyes that you could not fathom, so were they swimming with life and love and joy, that required from her more than the usual share of a mother's attention. Now he was clambering recklessly up her knee, and clasping her in an embrace that well-nigh stifled her, and before she had recovered breath he was gone, soiling his hands and tearing his garments by climbing to the top of the summer-house to trim the grape vines, as he had seen his father do, pressing determinately against any obstacle that came in his way, and overcoming if it were possible to be overcome, and astonishing all who heard him by the curious reasons he gave for his erratic ways. Over his books there was the same restless energy, that made him the wonder, the study, the delight of all who knew him. In the household he was the center of affection and of action. Though one of the younger members of the flock, it was to him that all explanations were appealed, round him that all attraction seemed to cluster. He was the pride of his

father, the wonder and delight of his mother.

But there came a day when Milly returned to her home from one of life's school-tasks that had called her thence, to find this pride of her house laid low—uprooted from the soil of affection where he had grown, torn by violence from the fond arms that encircled him, with the lids closed over the joy of those blue eyes to be raised no more. Veiled forever behind an impenetrable curtain was the laughing love that had made her task a blessing.

Terrible was the grief with which the fond mother sank beneath the stroke, robbing herself in darkness and refusing to be comforted, for the light of her household was no more.

For many days she moved stonily about the tasks that claimed her, as if the blow had changed her into marble; and it was by slow degrees that love of the little ones who remained to her, called her back to a full interest in the work of life. Heavy and gloomy was the path by which she was led back from the valley of sorrow to the garden of affection, where her children claimed her cheerful love. But with eyes that had been touched as with a coal from off the holy altar, she came to look upon her charge at last.

"My reserve ground!" she murmured, as she gathered them fondly about her. "My noble flower has been transplanted to the eternal gardens, because our Father had a worthier place for him to fill. He waits for us with the arms of his love outstretched, and its warm glow kindled with a heavenly fire that cannot cease to burn. Death cannot sever us. He is still mine amid the glory of the Elysian fields. Let me look hereafter upon this garden of my love as a reserve ground, where I am to labor faithfully, but upon whose treasures the Father hath the strangest claim. And let me only seek that the plants I have reared may be mine in the heavenly gardens—mine in the spot for which I have trained them."

Household Recipes.

Washing Fluid.

A subscriber writing from Milan, Monroe county, says:

"I forward you a recipe for making a washing fluid which will cost six cents a gallon, that will be worth at least the price of the Farmer one year to any one who pounds and rubs dirty clothes. Take one gallon of rainwater, boil, and skim if necessary; add three ounces of saltpetre and one ounce of borax, boil until dissolved and put into a jug. Take one pint of soap, add four table spoonfuls of the fluid, and soap your clothes with it; put them in warm water and let them soak half an hour, stirring them occasionally. Wring them out and put on some more of the soap, and boil them; then take them out into a tub of clean water, rub them slightly and rinse them, and they will look much better than if rubbed on the washboard for hours without the fluid."

To Keep Worms out of Dried Fruit.
It is said that a small quantity of sassafras bark mixed with dried fruit will keep it free from worms for years. The remedy is easily obtained in many localities, and is well worthy an experiment, as it will not injure the fruit in any manner, if it does not prevent the nuisance.

Ripe Cucumber Pickles.
A year or two ago we gave a recipe for making sweet pickles from ripe cucumbers. Since then we have eaten pickles made in the following way, which were most excellent, delicately white, and keep crisp and tender the year round. Pare good, sound, ripe cucumbers, cut lengthwise into strips of suitable thickness, put them into salt and water three days, changing the brine every day. Then rinse, and wipe them dry with a linen cloth; scald them in vinegar three times, and add such spices as you like. Cloves are apt to make the pickles black.

For our Young Friends.

I am composed of 18 letters.
My 12, 13, 1, 2, 13, is a decomposed substance.
My 15, 8, 5, is what a minstrel sings.
My 6, 8, 17, 16, 4, 5, is the name of a bird.
My 13, 1, 8, 18, is the name of a fish.
My 1, 8, 5, is a dried vegetable.
My 4, 9, 2, is a kind of grain.
My 5, 2, 13, is an answer sometimes given to questions.
My 14, 8, 3, 18, is a member of the body.
My 11, 10, 7, 15, 9, is what many children are fond of.
My 6, 8, 13, 1, is what merchants trade for.
My 6, 16, 9, 5, 15, is a channel of water.
My whole was the name and residence of a distinguished citizen of the United States. W. L.

Answer to Puzzle of last week:—
If from naughty shakes you'd be secure,
Try the efficacy of Ayre's Agree Cure.

Answer to Enigma of last week:—THE BATTLE OF LEXINGTON

GROVER & BAKER'S CELEBRATED FAMILY SEWING MACHINES.

495 Broadway, New York.
143 Jefferson Avenue, Detroit.
58 West Fourth Street, Cincinnati.

A NEW STYLE—PRICE \$50.
This machine sews from two spools, as purchased from the store, requiring no rewinding of thread; it Hems, Fells, Gathers and Stitches in a superior style, finishing each seam by its own operation, without recourse to the hand-needle, as is required by other machines. It will do better and cheaper sewing than a seamstress can, even if she works for one cent an hour. Send for a Circular.

RATS—A most novel and effective way of taking rats by wholesale without Poison or Traps. Ships, Mills, Barns, Stables, Granaries, Warehouses, Farmsteads, and houses cleaned at once. Any person can by this simple arrangement, clear the entire premises of every rat, however numerous they may be, in a single night. Sent free by the return of post for one dollar by JOHN CHILCOTT, Jr., 72 Fulton St., Brooklyn, Long-Island.

WHEELER & WILSON'S IMPROVED SEWING MACHINES.

PRICES GREATLY REDUCED.

Particular attention is invited to the

NEW STYLE AT \$50.00.

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L. D. & H. C. GRIGGS,

GENERAL AGENTS for Michigan and Western New York.

145 Jefferson Avenue, Detroit.

GOOD NEWS.—A reduction in the prices of Sewing Machines is announced in our advertising columns. Their utility is established beyond question, and at the present prices we see no reason why they should not be found, as they ought to be, in every household. Several varieties are manufactured, adapted to various purposes. So far as public opinion has been formed and uttered, the preference is emphatically accorded to the Wheeler and Wilson machine for family use, and for manufactures in the same range of purpose and material. During the present autumn the trials have been numerous, and all the patents of any pretension have brought fairly into competition. In every case, the Wheeler & Wilson machine has won the highest premium. We may instance the State Fair of New York, New Jersey, Pennsylvania, Kentucky, Illinois, Wisconsin, Virginia, Michigan, Indiana, Mississippi, Missouri and California, and the Fairs in Cincinnati, Chicago, St. Louis, Baltimore, Richmond, and San Francisco. At the Fair of the St. Louis Mechanical Association, the Examining Committee was composed of twenty-five Ladies of the highest social standing, who, without a dissenting voice, awarded for the Wheeler & Wilson Machine, the highest only premium, a Silver Pitcher, valued at \$75. If these facts do not establish a reputation, we know not what can.—*Christian Advocate and Journal.*

DRY GOODS AND CARPETS. NALL, DUNKLEE & CO.

Would invite the attention of the Farmers of Michigan when visiting Detroit, to their extra

FALL & WINTER STOCK

OF

CARPETS,

FOREIGN AND DOMESTIC

DRY GOODS,

Embracing every variety of

Fancy Silks, Black Silks,

Valencia Robes, Bayadere Stripes,

Laces, Ribbons, etc.,

White Goods, Kid Gloves,

Hosiery, Sheetings, Cloths,

Flannels, Ticks, Printed Lawns,

Cambries, Ginghams,

Muslin Linens,

Stella Shawls, Broche Shawls,

OUR CARPET AND FURNISHING STOCK

Is complete in all its branches.

Tapestry Velvet Carpet,

Tapestry Brussels do,

Imperial Three Ply,

Extra Super Ingrain,

Superfine do, Fine Ingrain do,

Cotton and Wool do.

Silk Damask, Worsted do,

Morocco, Druggetts, Green Baires,

Cocoa Matting, Plain and Check Matting,

Gilt Shade, Common do,

Shade Tassels, Cornices,

Rugs and Mats,

Window Shades,

Oil Cloths, 8, 12, 18 and 24 foot,

Live Geese Feathers, Paper Hangings

Which we offer cheap for cash.

NALL, DUNKLEE & CO.

14-17 No. 74 Woodward Avenue, Detroit.

PUBLIC SALE

OF

DURHAM CATTLE.

ON WEDNESDAY, the 21st September next, at 10

o'clock A. M., at my farm, two miles east of North

ville, in the town of Novi, Oakland county, I will sell

the following Stock:

20 head of Durham Cattle, consisting of Cows, Heifers,

and Heifer and Bull Calves. Also, forty Fine Wool

Sheep, ten Buck Lambs, of Cotswold and Southdown

crosses, (the best Mutton sheep.) I will also offer my

Prize Young Bull, GOVERNOR, sired by Imported

Governor, reserving one bid to myself. The sale will be

positive and without reserve, except in the one instance

mentioned above.

TERMS.—On sums under \$50, six months, over \$50,

nine months credit will be given on approved notes,

with interest; or a liberal discount will be made for

cash.

M. L. BROWN.

Northville, August 15, 1859.

Fruit, Ornamental Trees, Plants, &c.

A. FROST & CO., Proprietors of the Genesee Valley

Nurseries, Rochester, N. Y., cultivate for sale every

variety of Fruits, Ornamental Trees, Plants, Bulbs

etc.

Their stock is well grown, and most extensive, occupying

THREE HUNDRED ACRES of fine soil, which

enables them to fill all orders in large or small quantities,

in a most satisfactory manner. Plants are packed so

that they will reach accessible places, in any part of

the United States, in perfect order.

The following Catalogues contain full particulars of

the stock in the different departments, and will be fur-

nished gratis to all applicants.

No. 1. Descriptive Catalogue of Fruits.

No. 2. Descriptive Catalogue of Ornamental Trees,

Shrubs, Roses, &c.

No. 3. Descriptive Catalogue of Dahlias, Verbenas,

Greenhouse Plants, &c.

No. 4. Wholesale Catalogue or Trade List.

No. 5. Descriptive Catalogue of Flowering Bulbs.

Address A. FROST & CO.,

Rochester, N. Y.

38-4w

CAHOON'S PATENT

BROADCAST SEED SOWER.

For Sowing Wheat, Oats, Barley, Grass

Seed, &c.

THE HAND MACHINE sows from four to eight acres

per hour at a common walking gait, throwing out

Wheat four feet and Grass Seed twenty feet.

THE HORSE POWER MACHINE at the usual walk-

ing gait of a horse sows from ten to fifteen acres per hour,

throwing Wheat about sixty feet wide at each passage.

The vast superiority of this machine over all others,

in the perfectly regular and even distribution

of the seed, and the wonderful rapidity with which the

work is performed, combined with their perfect simplicity

and durability, have already placed them in the front

rank of labor saving agricultural implements.

A saving of three fourths of the labor and one

fourth of the seed used in hand sowing is effected by

using these machines. A person entirely unused to sow-

ing by hand, can use either machine with perfect success.

They are warranted to give perfect satisfaction and to

save their cost in less time than any other farm imple-

ment yet introduced.

These machines can be purchased of Agents in all the

principal places in the State.

For further particulars address P. B. SANBORN,

General Agent for Michigan and Western Canada,

At B. B. & W. E. NOYES' Hardware Store,

32-3m

56 Woodward Avenue, Detroit, Mich.

SINGER'S SEWING MACHINES.

\$50! \$75! \$110! \$125!

For Families and Tailors,

AND ALL MANUFACTURING purposes, these

machines are unequalled. They are more durable,

capable of doing a greater variety of work, and of earn-

ing more money than any other

MACHINE IN THE MARKET.

And for family use there are none that can excel our

machines for service or in beauty of appearance. Call

examine them at

133 Jefferson Avenue, Detroit, Mich.

27-5w

WILLIAM PORTER, Agent.

ARTESIAN WELLS.

INFORMATION WANTED.

PERSONS who are engaged in, or who understand the

business of making ARTESIAN WELLS, are re-

quested to correspond with the subscriber with the de-

sign of constructing one on his premises. Address

JULIUS HACKLEY,

Alamo, Kalamazoo Co., Mich.

81-4w

SECRETS DISCLOSED!

THE SUBSCRIBER offers for sale a Recipe Book

which contains a Recipe for making every article

that is manufactured in the country, of Soaps, Hair Pre-

parations, Colognes, Essences, and Perfumeries of all

kinds, Beers, Syrups, Meads, Soda, and Mineral water,

Paints, Blackings, Inks, &c., &c., and Recipes for making

every article manufactured; one for making Honey,

which cannot be recognized from that made by bees,

either in look or in taste, and the cost of which does not

exceed three cents per pound, and can be made in a few

minutes; another for making Fluid; another for making

Soft Soap, which can be made with little trouble and at

a cost not exceeding sixty cents per barrel, and is not to

be surpassed for excellence. Which book will be sent to

any one that remits to us by mail, Fifty Cents, either in

money or in postage stamps, to

J. H. BEALS,

Ashland, Mass.

82-6w

AGENTS WANTED.

100 young and middle aged men were wanted to act as

agents who will receive \$50 per month and expenses

paid, or an agent can engage in the business for himself

upon a capital of \$12 and make from \$2 to \$10 dollars

per day, for some of our agents have made twice that sum.

For particular enclose postage stamp and address,

J. H. BEALS, Ashland, Mass.

84-3m

"HARD TIMES NO MORE."

ANY Lady or Gentleman, in the United States, pos-

sessing from \$2 to \$7 can enter into an easy and re-

spectable business, by which from \$5 to \$10 per day can

be realized. For particulars, address (with stamps),

W. C. ACTON & CO.,

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue.
DETROIT, MICHIGAN.

S. FOLSON, WOOL DEALER,

90 Woodward Avenue,
DETROIT, MICHIGAN.

THE MARKETS.

Flour and Meal.

Since our last issue the breadstuffs market both here and in New York has materially improved. This improvement has resulted from a temporary scarcity, and it is not considered at all permanent. On the other hand it is said that the first heavy receipts will produce a change, and this is looked for at any moment. Be this as it may, it is certain that, in Detroit, flour is 25¢ better than a week since, and that a corresponding advance also obtains in the wheat market.

Flour has been moderately active, but closes quiet at \$4.62½ for red wheat brands, and \$4.70½ for choice white. Both demand and supply are, to-day, quite light.

Wheat has advanced 20¢, closing firm at \$1.10 for red and \$1.05½ for white. There is at the close a good demand for wheat both for milling and for shipment, but buyers talk of a speedy decline.

Corn—Has been very scarce, and has ruled firm at 72¢, our last week's quotation.

Oats—Have been in better supply, and prices have declined a few cents. On street, the prevailing rate is 28¢, though 30¢ is still commonly asked.

Rye—Is beginning to come in, but no sales have been made.

Barley—Is also arriving in small quantities. A sale was made early in the week at \$1 for 100 lbs. The quality of the lot was not stated.

Mill feed—Bran is quoted dull at \$11½ per ton.—Cornmeal in very little request, and nominally unchanged.

Potatoes—Are a shade better than last week, though still rather dull. We quote 85¢ for Red, and 84¢ for prime roll.

Eggs—Very dull. There is hardly any demand at all for eggs, and by the barrel we cannot quote over 50¢.—In smaller quantities 75¢ is the market price.

On Monday last, the ruling prices at several different points on the Central Road were—

points in the Central Iowa were—	Red.	White.
St. Joseph.....	85c	95c
Niles.....	76c	80c
Dowagiac.....	80c	85c
Balamazoo.....	75c	80c
Battle Creek.....	85c	92c
Marshall.....	75c	85c
Albion.....	80c	90c
Jackson.....	80c	85c
Chickadee.....	80c	85c
Dexter.....	95c	100c
Ann Arbor.....	85c	90c
Ypsilanti.....	85c	90c